COMPACT DISC AUTO CHANGER

KDC-C601

SERVICE MANUAL

KENWOOD

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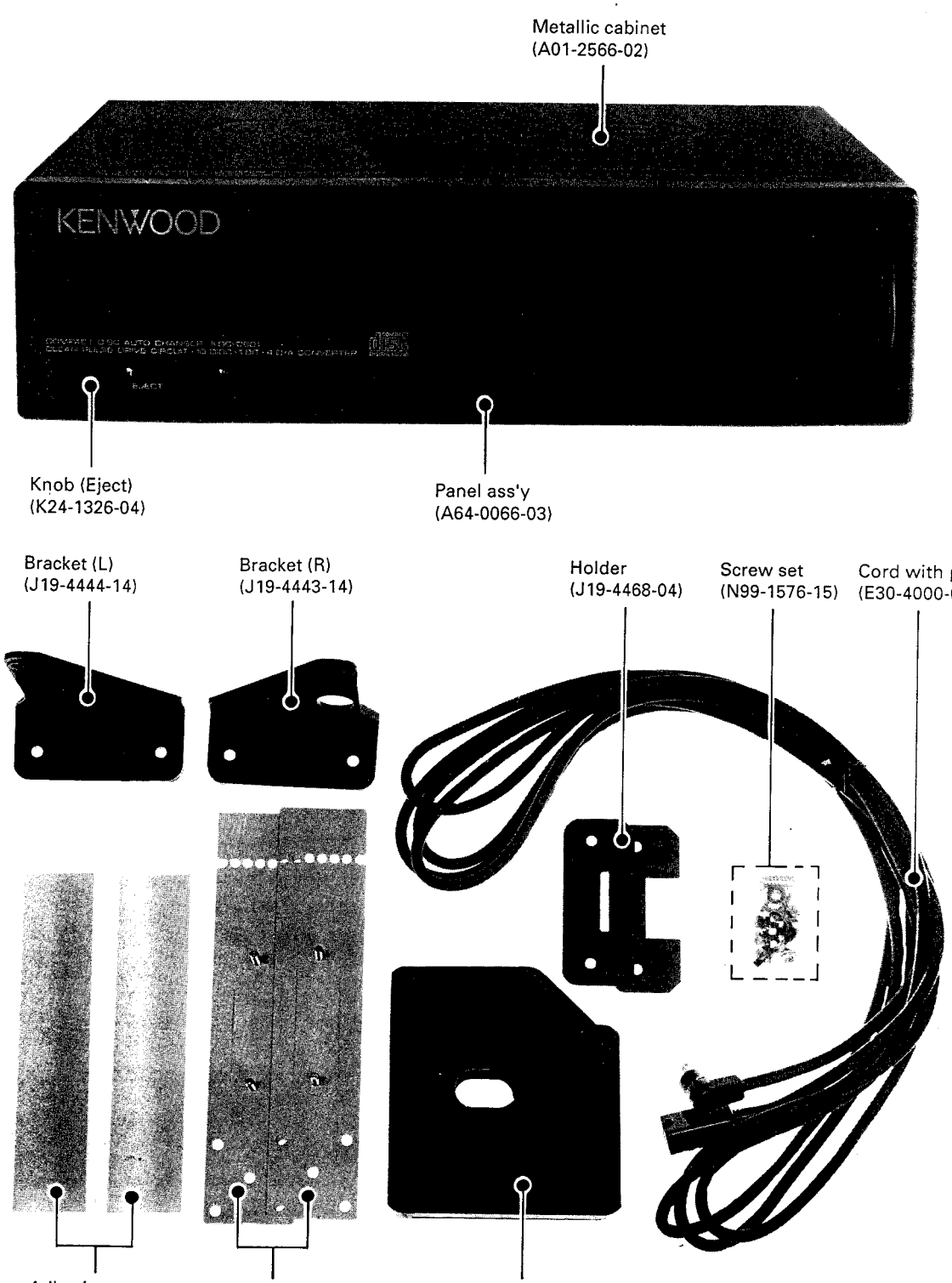

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CONTENTS

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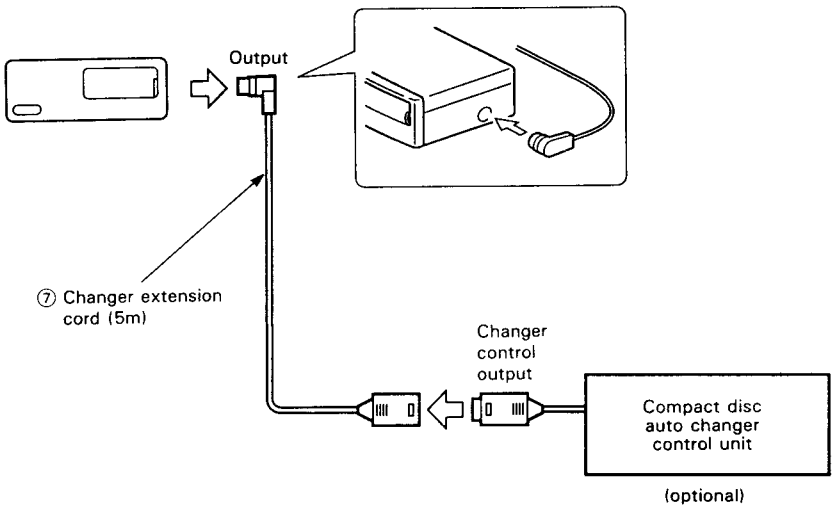
CONNECTION

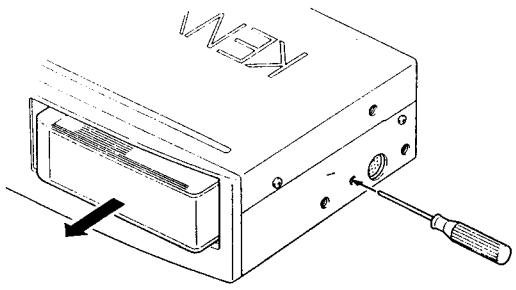
- When operating or checking this unit, use CD changer control receiver, KCA-R10, etc. as a control unit.



SERVICE NOTE

When power is not supplied to the unit, the disc magazine can be forced open with the following operation.

Insert a thin screwdriver or a rod into the hole on the right side of the unit, and push lightly. The internal lock will be released and the disc magazine will be ejected.



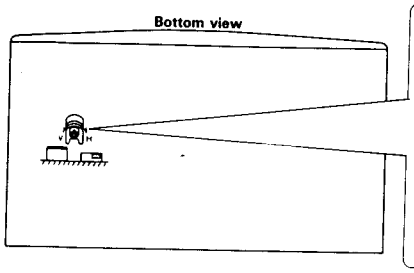
(Caution)

If the operation above is performed while a disc is present in the CD mechanism, the disc will remain inside the unit even after the disc magazine had been ejected. With this condition, when the unit is set to the normal operation mode (with the power supplied) and the magazine is inserted, the disc remaining inside will be recovered in the lowest position (disc No. 1) of the disc magazine. Therefore, if the disc magazine is inserted with a disc present in the lowest position (disc No. 1), the two discs will collide and malfunction will result.

OPERATION / LOADING COMPACT DISC

OPERATION

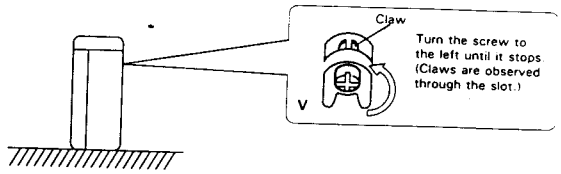
■ Be sure to turn the screw on the bottom of the unit according to the changer's installation orientation (horizontal or vertical).
(The spring is set for horizontal installation when the unit is shipped from the factory.)



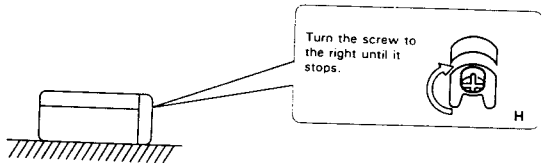
⚠ CAUTION

- The screw will not turn any further once it locks.
- If the screw is turned with the magazine inserted, the unit may be damaged. Be sure to eject the magazine before turning the screw.
Turn the screw while pushing the screwdriver lightly.

- **Vertical installation**
(Turn the screw 180° to the left.)

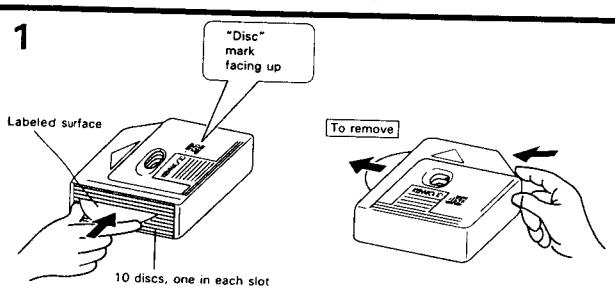


- **Horizontal installation**
(When switching from a vertical to horizontal installation, turn the screw 180° to the right.)



LOADING COMPACT DISC

1

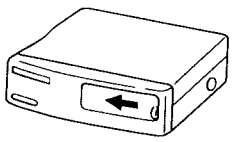


- Discs are number in sequence (1, 2, 3...) from the bottom slot up. Insert discs into the magazine with their labeled sides facing up.
- To remove a disc from the magazine, press on the rear of the disc so that it slides out the front. Do not use too much force or the disc may fly out the front of the magazine.

⚠ CAUTION

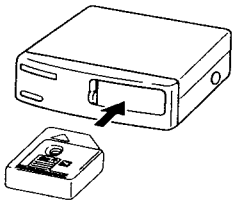
8 cm (3 in) CDs cannot be used in this unit. If an 8 cm (3 in) CD adapter is used, the disc will not eject.

2



- Open the door of the unit.

3

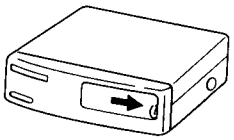


- Insert the disc magazine into the unit.

NOTE

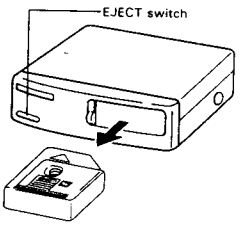
Insert the disc magazine till it clicks.

4



- Dust entering the unit will make the laser pickup dirty and adversely affect performance. Always be sure to keep the door closed.

5



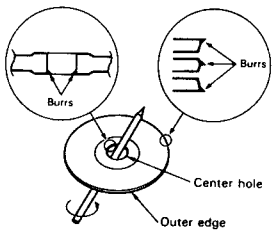
- To remove the disc magazine, open the door and then press the EJECT switch.

NOTE

The magazine will not eject if the door is not completely open.

⚠ CAUTION

<When using a new disc>

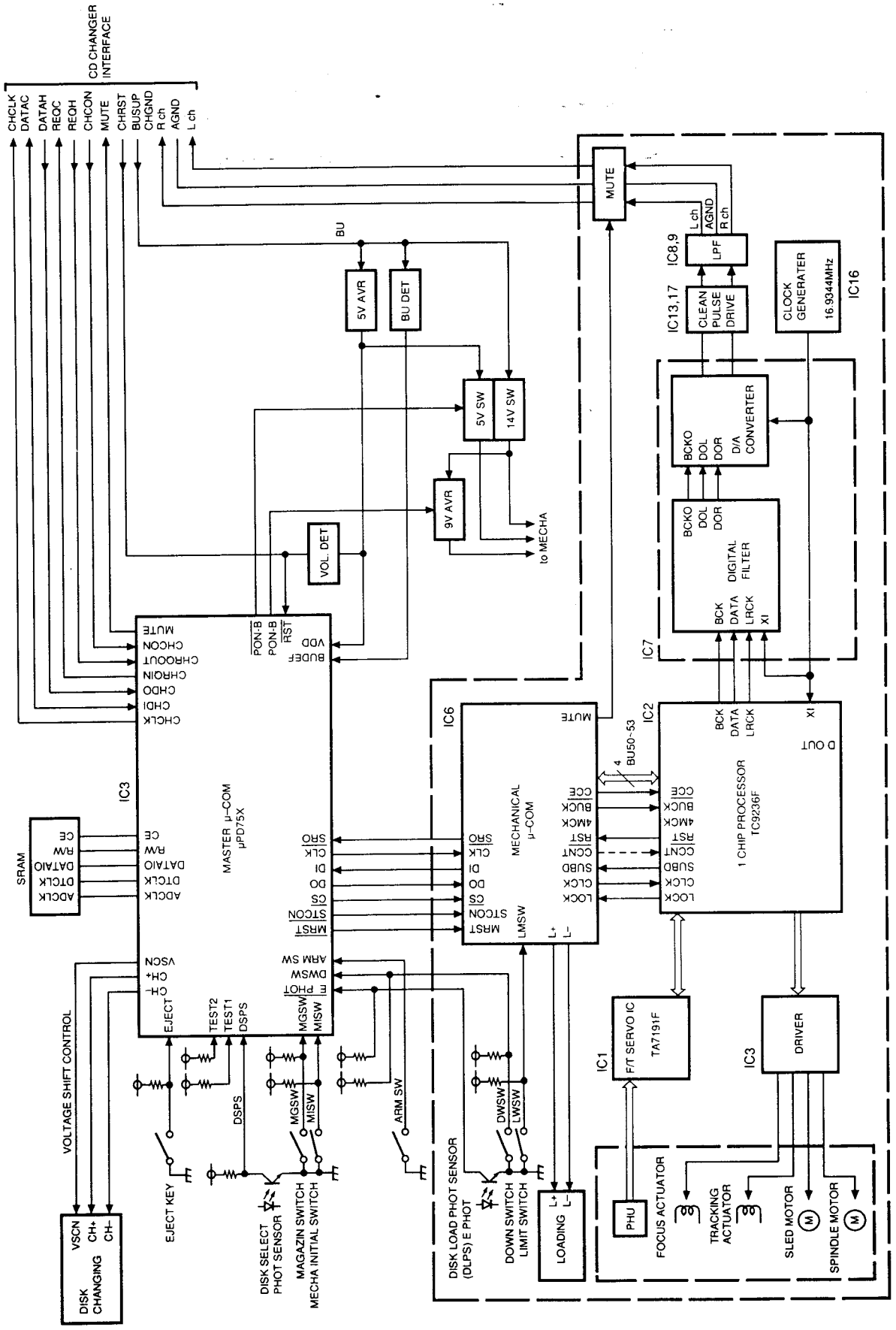


- Before using a new disc, be sure to check for burrs around the edges of the disc's center hole and outer circumference (see diagram at left). If burrs are present, use a ballpoint pen or similar instrument to remove them. If a disc is used with burrs still attached, the disc may not fit properly in the player or disc magazine, or the sound may tend to skip during playback.

<Disc accessories>

- There are several types of disc accessories (stabilizers, protective seals, etc.) on the market designed for various purposes such as sound quality improvement and disc protection. Use of such disc accessories will change the thickness or outer dimensions of the disc with the result that the disc will not conform to standard specifications. Discs with this type of accessory attached may cause the disc changer to malfunction and should therefore not be used with this unit.

BLOCK DIAGRAM



CIRCUIT DESCRIPTION

CONTROL CIRCUIT UNIT (X29-2310-00)

Ref. No.	Device	Use and Function	Operation and Condition
Q1	2SB1050	Audio power SW	Supplies 14 B to MD.
Q2	2SB941	Servo power and mechanism up/down driver power AVR	
Q3	DTC124EK	CD-CH ON/OFF SW	
Q4	DTC124EK	CH-CH RST SW	
Q5	DTA124EK	Eject SW	
Q6	DTC124EK	Audio power SW	
Q7	2SB1188	5 V SW	
Q8	DTA124EK	Muting driver	Output to head unit.
Q9	DTC124EK	BU detector	
Q10	2SC2412K	Same as Q2	
IC3	75112GF-740-3BE	System μ-COM	CD-CH mechanism control, control of communications with mechanism controller, control of communications with head unit.
IC4	S-80737AN-DI	μ-COM RST IC	Reset occurs when VDD becomes 3.7 V.
IC5	SN74HC367ANS	Interface buffer	
IC7	TA7291P	Motor driver	Up/down operation.
IC8	M5278D05	5 V AVR	VDD for microcomputer.

CD PLAYER UNIT (X32-2340-01)

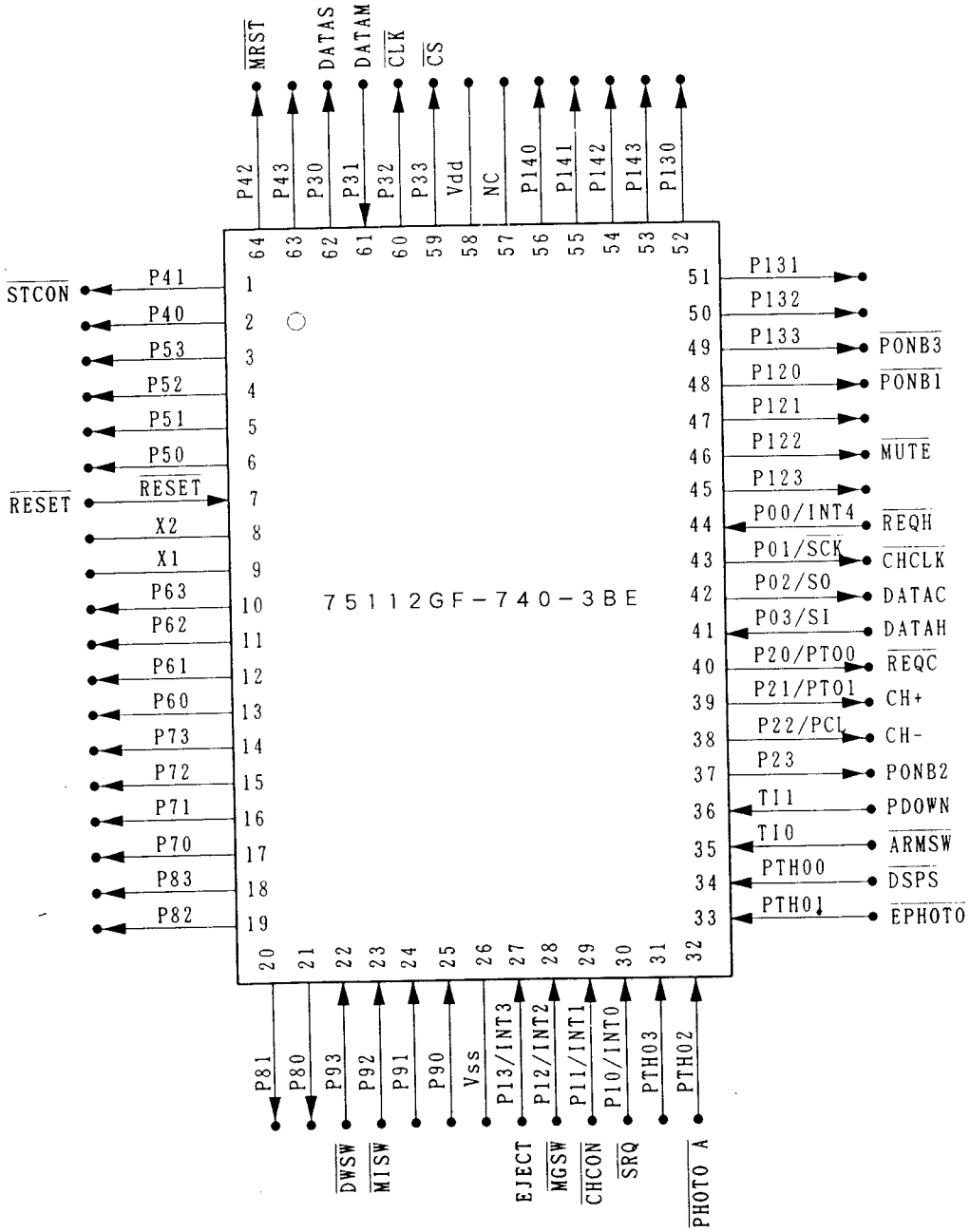
Ref. No.	Device	Use and Function	Operation and Condition
IC1	TA8191F	RF amp	RF signal generation, focusing & tracking servo.
IC2	TC9236AF	Signal processor	EFM demodulation, error detection & correction, audio data output, disc motor servo, focusing & tracking servo control, search control.
IC3	AN8388SR	Actuator driver	Drives focusing, tracking, sled, spindle and actuator.
IC5	TA7291F	Motor drive	Loading and ejection control.
IC6	75008GB-672-3B4	μ-COM	CD mechanism control.
IC7	SM5871AS	D/A converter	1-bit digital-to-analog converter.
IC8, 9	NJM4565MD	Low-pass filter	
IC11	TA78L05F	3-terminal regulator	Generates +5 V for audio circuitry.
IC12, 16	TC7SU04F	Inverter	Inverts LRCK.
IC13, 17	TC74AC04F	Inverter	Audio pulse output buffer.
Q1	2SB624 (BV3)	Laser power control	
Q2	2SA1037K	Temperature detector	
Q3	DTC124EK	Spindle gain SW	ON with 8 cm disc, OFF with 12 cm disc.
Q4	2SC2412K	Focusing error hold	Upon detection of scratch, goes ON to hold focusing error.
Q5	DTA124EK	Scratch detect pulse	Level conversion of disc scratch detection pulse.
Q7	DTC114YK	Gain SW	Switches low-frequency gain of tracking servo between play and search modes.
Q8	DTC114YK	Logic inverter	Inverts μ-COM output logic to control Q7.
Q9	2SA1037K	Reference potential generation	Generates 4.2 V in collaboration with TA8191F.
Q10	2SC2412K	Gain SW	Controls high-frequency gain of tracking servo.
Q11	DTC114YK	Gain SW	Reduces tracking servo upon detection of scratch.
Q12	DTC124EK	Clock SW	Turns 16 MHz master clock ON/OFF.
Q13	2SA1036K	+5 V SW	Turns +5 V for servo/digital circuitry ON/OFF.
Q14	2SD1624	Regulator	Generates +9 V for audio circuitry.

CIRCUIT DESCRIPTION

Ref. No.	Device	Use and Function	Operation and Condition
Q15	DTA124EK	Audio muting control	Drives Q16 and Q17 based on level conversion of muting signal from μ-COM.
Q16, 17	2SD1757K	Audio muting	
Q18	DTC124EK	PLL control	Upon detection of scratch, sets PLL phase comparator output to Hi-Z.
Q19	DTC124EK	D/A reset	Releases reset of D/A converter in synchronism with the rise of master clock.
Q20	DTC124EK	Emphasis SW	Inverts the logic of emphasis control output from IC2.

IC3: 75112GF-740-3BE (X29-2310-00) SYSTEM MICROCOMPUTER

1: Terminal pin layout



CIRCUIT DESCRIPTION

2: Terminal description

Pin	Port	Also used as:	I/O	Signal Name	Application
1	P41		O	$\overline{\text{STCON}}$	MD μ-COM stop signal output. L for stop mode.
2	P40		O		Not used.
3	P53		O		Not used.
4	P52		O		Not used.
5	P51		O		Not used.
6	P50		O		Not used.
7	$\overline{\text{RESET}}$		I	$\overline{\text{RESET}}$	Hardware reset terminal.
8	X2		O	X2	System clock oscillator connection. 4.19 MHz.
9	S1		I	X1	System clock oscillator connection. 4.19 MHz.
10	P63		O		Not used.
11	P62		O		Not used.
12	P61		O		Not used.
13	P60		O		Not used.
14	P73		O		Not used.
15	P72		O		Not used.
16	P71		O		Not used.
17	P70		O		Not used.
18	P83		O		Not used.
19	P82		O		Not used.
20	P81		O		Not used.
21	P80		O		Not used.
22	P93		I	$\overline{\text{DWSW}}$	Disc down detection. "L" when chucked.
23	P92		I	$\overline{\text{MISW}}$	Mechanism deck reference position detection. "L" between (DISC2→DISC1) and (EJECT).
24	P91		I		Not used.
25	P90		I		Not used.
26	Vss			GND	GND.
27	P13	INT3	I	EJECT	Eject SW. "H" with switch ON.
28	P12	INT2	I	$\overline{\text{MGSW}}$	Magazine detection. "H" when magazine is present.
29	P11	INT1	I	$\overline{\text{CHCON}}$	Changer ON. "L" for ON.
30	P10	INT0	I	$\overline{\text{SRQ}}$	Communication service request from MD μ-COM. "L" for request.
31	PTH03		I		Not used.
32	PTH02		I	$\overline{\text{PHOTOA}}$	MD-side loading photosensor. "H" while disc is passing.
33	PTH01		I	$\overline{\text{EPHOTO}}$	Magazine-side photosensor. "H" while disc is passing.
34	PTH00		I	$\overline{\text{DSPS}}$	MD position selection photosensor. "L" in normal stop position.
35	TI0		I	$\overline{\text{ARMSW}}$	Loading arm SW. "H" during pulling disc in.
36	TI1		I	$\overline{\text{PDOWN}}$	Power down detection. "H" indicates momentary power down.
37	P23		O	PONB2	Peripheral circuit power ON SW. H: power ON. L: OFF.
38	P22	PCL	O	CH−	Negative terminal of disc change motor.
39	P21	PT01	O	CH+	Positive terminal of disc change motor.
40	P20	PT00	O	$\overline{\text{REQC}}$	Communications request line to head unit. Active "L".
41	P03	SI	I	DATAH	Communications data line from head unit.
42	P02	SO	O	DATAC	Communications data line to head unit.
43	P01	SCK	O	$\overline{\text{CHCLK}}$	Communications clock line with head unit.
44	P00	INT4	I	$\overline{\text{REQH}}$	Communications request line from head unit. Active "L".

CIRCUIT DESCRIPTION

Pin	Port	Also used as:	I/O	Signal Name	Application
45	P123		O		Not used.
46	P122		O	$\overline{\text{MUTE}}$	Muting output. H: MUTE ON. L: MUTE OFF.
47	P121		O		Not used.
48	P120		O	$\overline{\text{PONB4}}$	Peripheral circuit power ON SW. H: OFF. L: ON.
49	P133		O	$\overline{\text{PONB3}}$	Head unit communications IC power ON SW. H: ON. L: OFF.
50	P132		O		Not used.
51	P131		O		Not used.
52	P130		O		Not used.
53	P143		O		Not used.
54	P142		O		Not used.
55	P141		O		Not used.
56	P140		O		Not used.
57	NC				Connected to VDD.
58	VDD				+5 V.
59	P33		O	$\overline{\text{CS}}$	Communication request to MD μ-COM. Active "L".
60	P32		O	$\overline{\text{CLK}}$	Communications clock output to MD μ-COM. No more than 524 kHz.
61	P31		I	DATAM	Data line from MD μ-COM. LSB first.
62	P30		O	DATAS	Data line to MD μ-COM. LSB first.
63	P43		O		Not used.
64	P42		O	$\overline{\text{MRST}}$	MD μ-COM reset.

3: Key matrix

This set does not have a key matrix.

4: Initial setup

This set does not need destination setup. But, at the time of initialization (reset), care should be used in the following points.

This set does not perform initial up/down operation unless all of the four sensors (PHOTOA, EPHOTO, DWSW, ARMSW) are clear (i.e. there is no disc in the magazine).

This set does not perform disc ejection while the magazine has already been ejected. If, when you attempt to reset it, there is a disc inside the MD and the magazine has been ejected insert the empty magazine or eject the disc in the test mode described in 5, then reset the set.

CIRCUIT DESCRIPTION

5: Test mode

The operation test mode with the specifications described below can be initiated using the CD changer fabricated by us. This test mode functions when the head unit is provided with the changer control function. (The test mode may not function with certain sets.)

1. Test mode initiation method

Make sure that no disc is present in the mechanism deck.

Fully open the CD changer door (in order to turn door switch S32 ON).

Press and hold the magazine eject switch on the CD changer, and press the reset switch on the head unit.

First release the reset key alone, then release the eject key.

Start up the head unit and select the changer mode. On this point, the head unit display should show "E-88".
(The display may not be proper with certain head units. In addition, if the connection check method is not normal, the operation may not occur.)

2. Operation

In the test mode, disc loading, ejection and the mechanism deck up/down operations can be performed as desired using the key operations listed below. Every operation occurs only while the corresponding key is ON, and stops when the key is OFF.
[Loading operation]
Press the forward track search key to start disc loading operation. This operation is canceled (stopped) when the key is switched OFF.
[Ejection operation]
Press the reverse track search key to start disc ejection operation. This operation is canceled (stopped) when the key is switched OFF.
[Mechanism deck up operation]
Press the disc select (+) key to move the mechanism deck toward disc No. 10. This operation is canceled (stopped) when the key is switched OFF.
[Mechanism deck down operation]
Press the disc select (−) key to move the mechanism deck toward disc No. 1. This operation is canceled (stopped) when the key is switched OFF.

3. Test mode cancellation method

Normal operation can be resumed by canceling the CD changer mode, resetting the set or turning Acc OFF.
However, it should be noted that the microcomputer of the CD changer starts reset operation when the mode is returned to normal operation. Therefore, if a disc is left inside the mechanism deck, a trouble such as double insertion of discs may occur. To prevent this, make sure that no disc is left inside the mechanism disc before returning to the normal operation mode. (Double insertion ill not occur if the mechanism deck is stopped in a position with which the magazine is capable of accommodating the disc.)

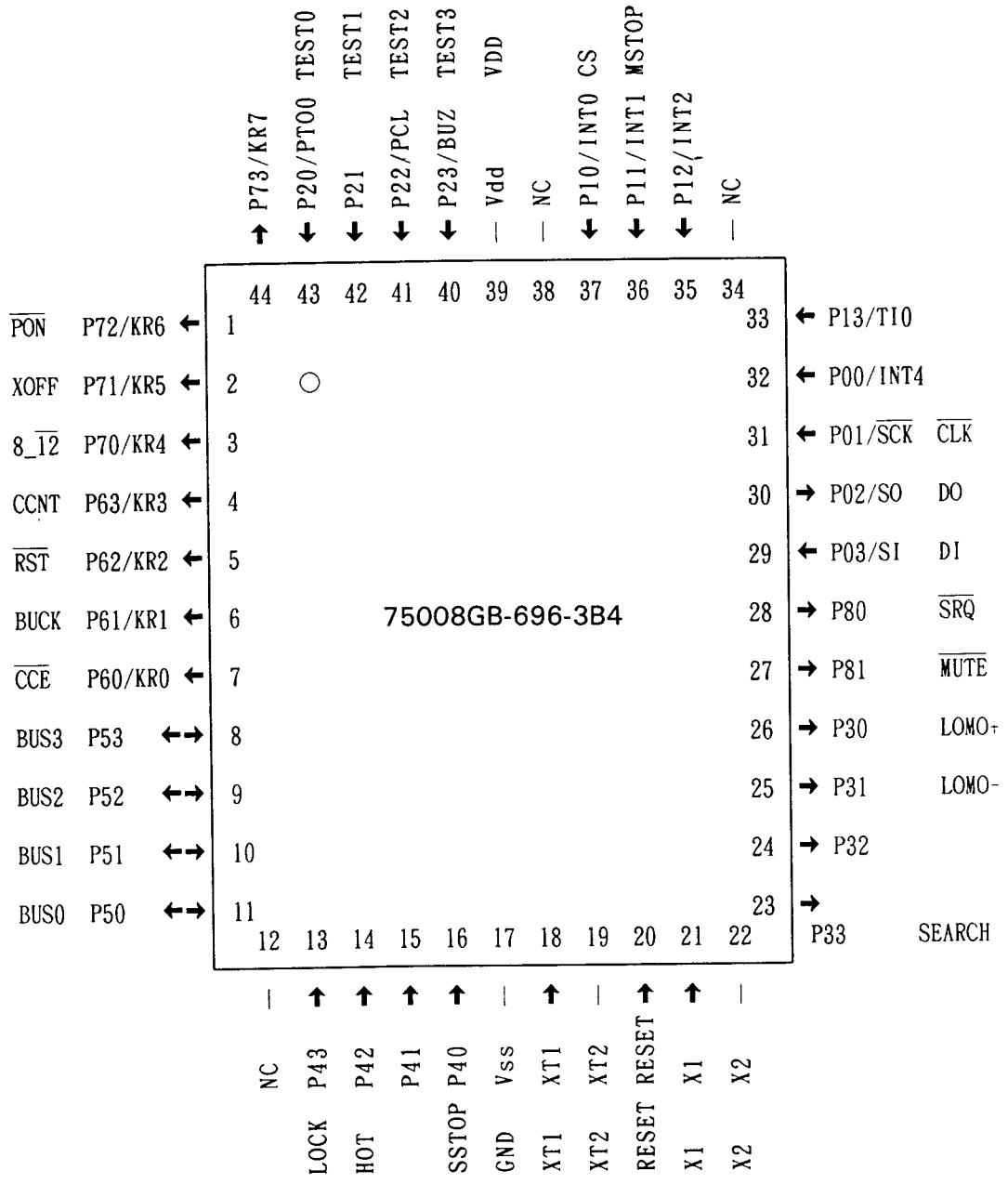
4. Other notes

The operation does not occur with a remote-controlled set such as the KCA-R1 and KCA-R20. Even with ordinary sets, operation by remote control is not possible.
The test mode should be run with a stable power supply. In case of power down, be sure to press the reset key and restart from the beginning.
If communications with the head unit is not available after quitting the test mode, reset the set.
If no operation occurs after the mode start operation, reset the set to make doubly sure.

CIRCUIT DESCRIPTION

IC6: 075008GB-696-3B4 (X32-2340-01)
MICROCOMPUTER

1. Terminal pin layout



CIRCUIT DESCRIPTION

2. Terminal description

Pin	Port	Also used as:	I/O	Signal Name	Application
1	P72	KR6	O	$\overline{PON}$	+5 V power control of TC9236F, etc. "L" for ON.
2	P71	KR5	O	XOFF	Servo clock OFF (16 MHz). "H" for OFF.
3	P70	KR4	O	8_$\overline{12}$	Disc size switching. "H" for 8 cm.
4	P63	KR3	O	CCNT	TC9236F subcode update inhibit output. "H" for inhibit.
5	P62	KR2	O	$\overline{RST}$	TC9236F reset. "L" for reset.
6	P61	KR1	O	BUCK	TC9236F command/data communications clock.
7	P60	KR0	O	$\overline{CCE}$	TC9236F chip enable. "L" for active.
8	P53		I/O	BUS3	TC9236F command/data communications bus.
9	P52		I/O	BUS2	TC9236F command/data communications bus.
10	P51		I/O	BUS1	TC9236F command/data communications bus.
11	P50		I/O	BUS0	TC9236F command/data communications bus.
12	NC				
13	P43		I	LOCK	EFM lock signal from TC9236F. "H" for lock.
14	P42		I	HOT	Hot temperature detection. "H" with hot temperature.
15	P41		I		Not used. Connected to GND.
16	P40		I	$\overline{SSTOP}$	Sled limit switch. "L" with innermost position.
17	Vss			GND	Connected to GND.
18	XT1		I	XT1	Subclock input. Not used, connected to GND.
19	XT2		O	XT2	Open.
20	$\overline{RESET}$		I	$\overline{RESET}$	μ-COM reset input. "L" for reset.
21	X1		I	X1	Main clock 4.19 MHz oscillator connection.
22	X2		O	X2	Main clock 4.19 MHz oscillator connection.
23	P33		O	SEARCH	Search status output. "H" during search.
24	P32		O		
25	P31		O	LOMO−	CD mechanism load motor −.
26	P30		O	LOMO+	CD mechanism load motor +.
27	P81		O	$\overline{MUTE}$	Muting output. "L" for muting ON.
28	P80		O	$\overline{SRQ}$	Communications service request to system controller. "L" for requesting.
29	P03	SI/SB1	I	DI	Serial data input from system controller.
30	P02	SO/SB0	O	DO	Serial data output to system controller.
31	P01	$\overline{SCK}$	I	$\overline{CLK}$	Serial communications clock from system controller.
32	P00	INT4	I		Not used. Connected to GND.
33	P13	TI0	I		Not used. Connected to GND.
34	NC				
35	P12	INT2	I		Not used. Connected to GND.
36	P11	INT1	I	$\overline{MSTOP}$	Mechanism control stop. "L" for stop and oscillation finish.
37	P10	INT0	I	$\overline{CS}$	Communications service request from system controller. "L" for request.
38	NC				
39	VDD			VDD	Power, +5 V.
40	P23		I	TEST3	Test input terminal 3. "H" for test mode.
41	P22		I	TEST2	Test input terminal 2. "H" for test mode.
42	P21		I	TEST1	Test input terminal 1. "H" for test mode.
43	P20	PTO0	I	TEST0	Test input terminal 0. "H" for test mode.
44	P73	KR7	O		Open.

CIRCUIT DESCRIPTION

3. Test modes

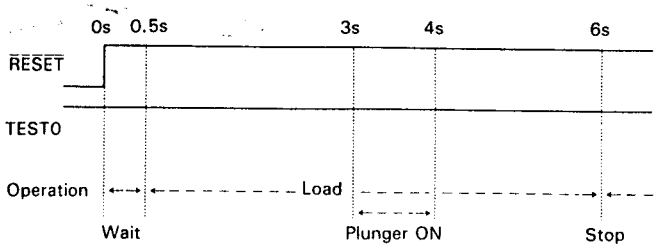
These test modes are designed to allow checking the servo system even in the stand-alone condition with which the system controller is not present, for example during the mechanism deck production process. They also allow to load or eject a disc without the system controller.

- Setup method and procedure

  The test modes are set regardless of the system controller, but by reading the test terminal statuses during reset operation. One of the following three modes can be set according to the statuses of the four test terminals. In any test mode, the servo and mechanism powers should already be turned ON before resetting.

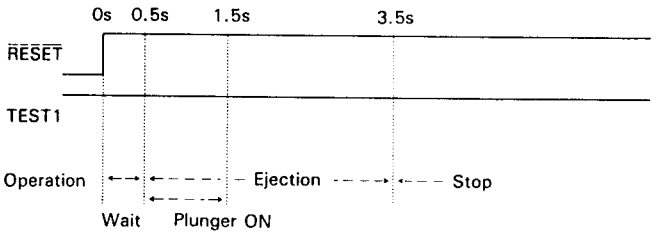
1) Self-loading

Loading starts when TEST0 terminal is "H" during reset. However, as the mechanism controller does not check the sensors, the timing is always constant as shown below. Therefore, correct chucking should be checked visually or by monitoring the DOWN SW.



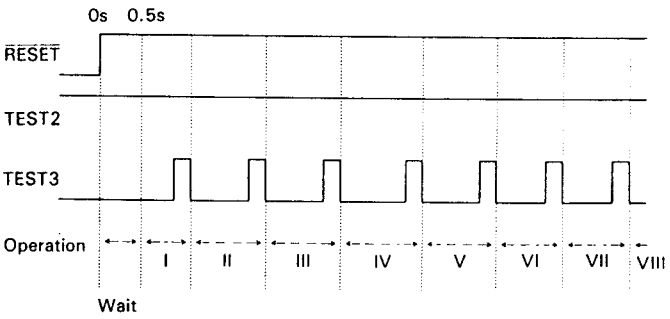
2) Self-ejection

Ejection starts when TEST1 terminal is "H" during reset. Similarly to the self-loading mode, the timing is constant as shown below.



3) Servo check

The servo check mode can be initiated when TEST2 terminal is "H" during reset. In this mode, the operations of the mechanism and servo can be activated and checked sequentially by simply applying "H" pulse to TEST3 terminal. If both TEST2 and TEST3 terminals are "H" during reset, the operation shown below occurs automatically and the last track plays.



As the pulse applied to TEST3 is not subjected to chattering cutting, only a pulse with duration from 100 ms to 1 s can be accepted.

The servo-related settings are for use with 12 cm disc only.

- Note

  The test modes can be canceled by resetting again or by entering the stop mode. Communications with the system controller are not performed in the test modes. In case more than one test terminal goes "H" simultaneously, the priority is given in order from TEST0 to TEST1 then TEST2.

I. Stop. No operation until pulse is applied.
II. Feed motor set at home position.
III. Laser diode ON.
IV. Focusing servo ON.
V. Disc motor kicked, CLV ON.
VI. Tracking servo and feed servo ON.
VII. First track played.
VIII. Last track searched and played.

MECHANISM OPERATION DESCRIPTION

1. Mechanism structure (configuration)

Roughly speaking, the mechanism is composed of the following four functions.

(1) Mechanism of loading, retaining and ejecting the magazine.

(2) Function pushing the disc out of the magazine.

(3) Mechanism made up of the sled motor, spindle motor, pickup, etc., which pulls the disc pushed out of the magazine with rollers. sets it on the turntable, plays it, and moves it into the magazine at the time of ejection (often called CD mechanism section).

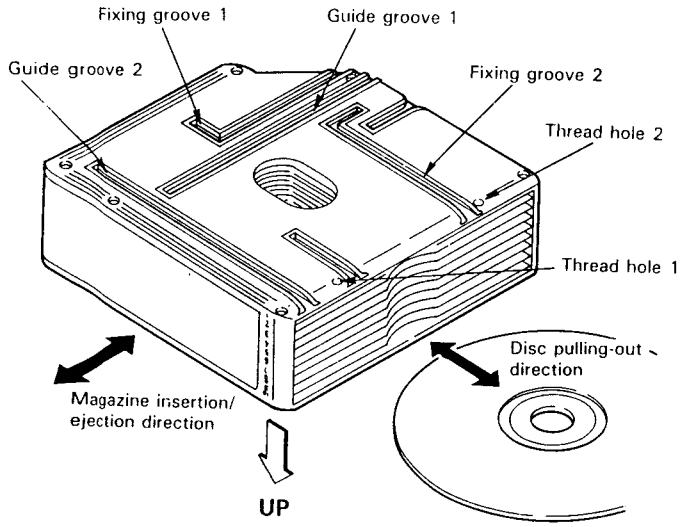
(4) Function moving the integrated mechanism of (2) and (3) up and down to the positions which allow to push the disc out of the magazine or to play the disc.

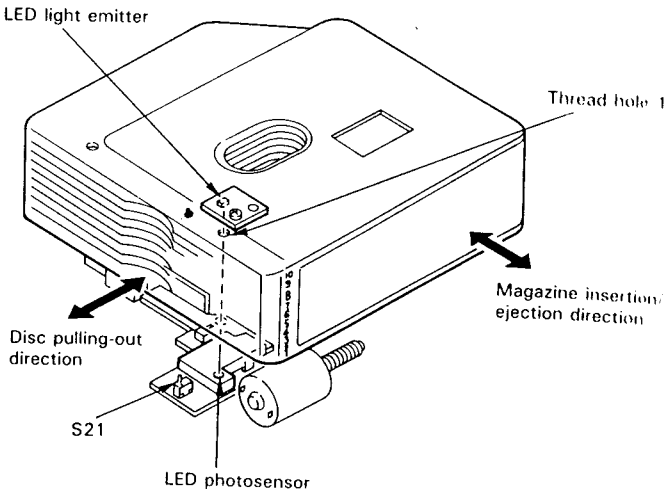
2. Magazine loading and ejection operations

When the magazine is seen from the bottom side, you find two guide grooves and two fixing grooves on it.

The current mechanism uses guide groove 1 and fixing groove 1. Guide groove 2 and fixing groove 2 are to be used when the magazine insertion/ejection direction becomes the same as the disc pulling-out direction in the future.

Thread holes 1 and 2 are used in combination with the LED light emitter and photosensor diode in order to detect the movement of discs inside the magazine.

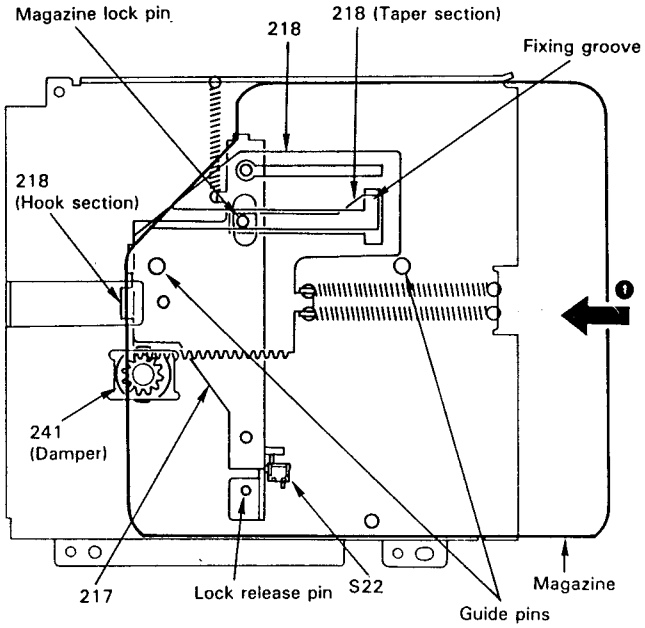




MECHANISM OPERATION DESCRIPTION

(1) Magazine loading

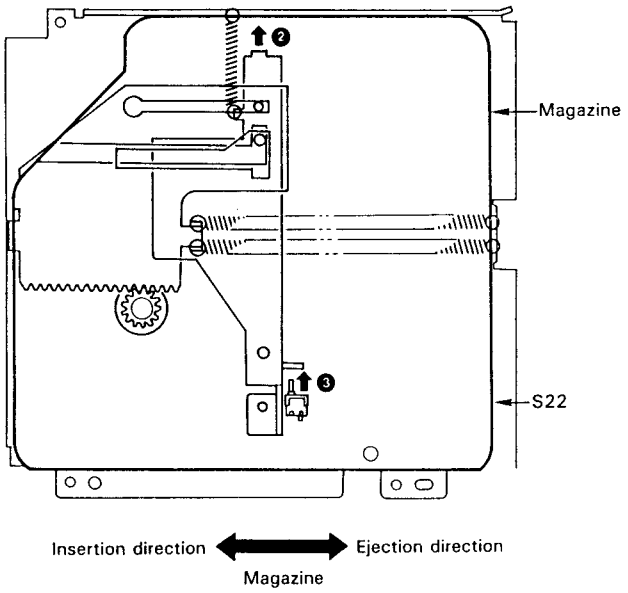
The magazine is inserted by hand. When the magazine is inserted ❶ using the guide pins as the guide and against the ejecting force of the lever (218), the magazine lock pin on the lever (217) is released (from the taper section of the lever (218)). When the magazine is inserted further, the lever (217) is slid ❷, the lock pin enters the fixing groove on the magazine, and the magazine is locked by the ejecting force of the lever (218). When the lever (217) is slid and the magazine is locked, the switch (S22) is turned OFF, enabling the detection of the presence of the magazine ❸.



(Initial setup of loading mechanism)

When the switch (S22) is turned OFF for the first time, motor MM1 starts rotation in the clockwise direction (when seen from the output shaft side) to rotate the gear (230) clockwise and move the loading mechanism upwards until the initial position detection switch (S21) on the loading mechanism is turned OFF. Then, motor MM1 is inverted so the switch (S21) is turned ON again, and the motor stops when the first hole on the gear (230) is detected ❺.

This condition becomes the initial status with the position which allows to load or eject the first disc in the magazine.

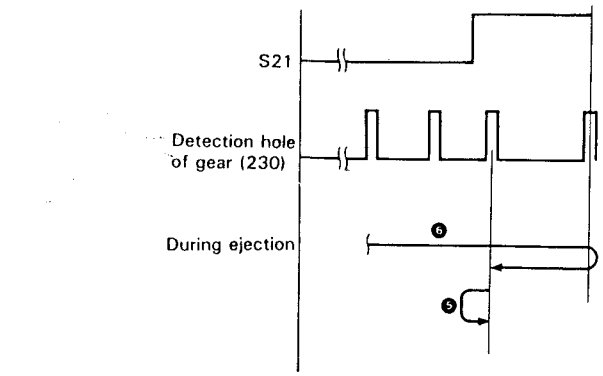


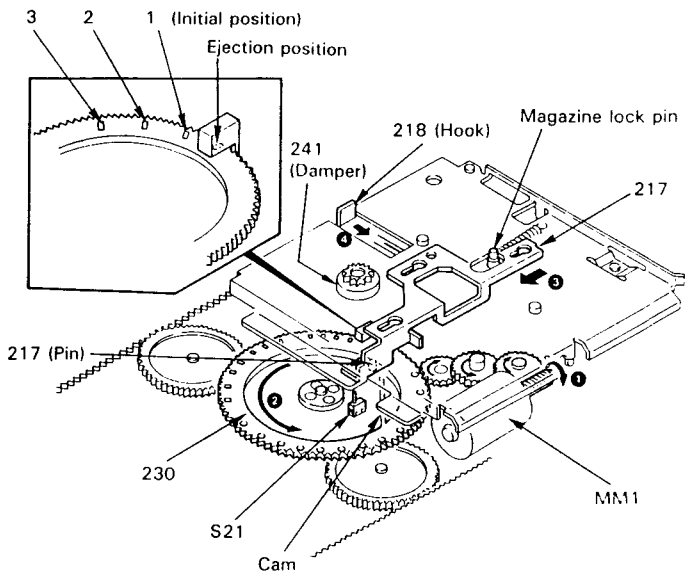
MECHANISM OPERATION DESCRIPTION

(2) Magazine ejection

The magazine is ejected using motor MM1. The motor rotation ❶ is transmitted to the gear (230) ❷. The cam of the gear (230) pushes the pin of the lever (217) and releases the locking of the magazine by sliding the lever (217) ❸.

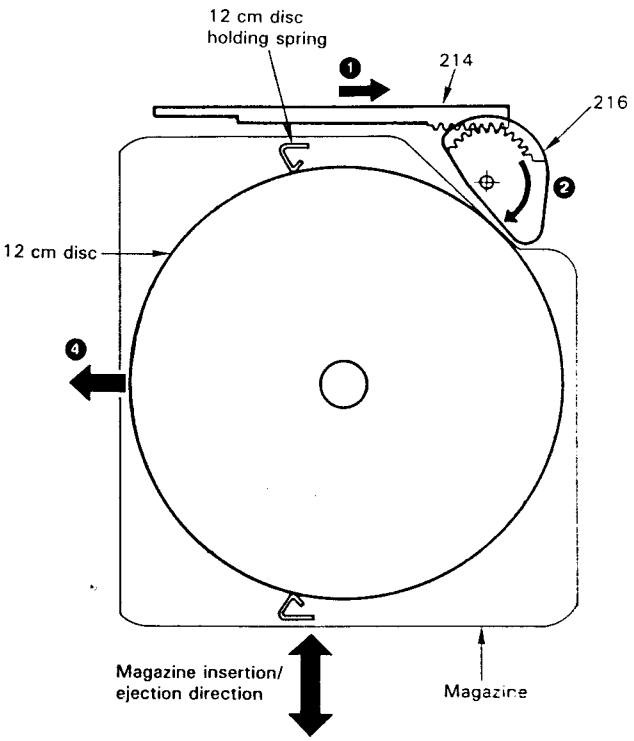
As a result, with the force of a spring, the lever (218) ejects the magazine ❹. During ejection, the damper (241) interlocked with the lever (218) prevents the magazine from popping out. On the other hand, the movement of the gear (230) reverses after the ejection hole is detected, and stops when the first hole (first hole found after inversion) is detected (initial condition) ❻.





3. Loading and ejection of disc from/into magazine

The disc is pushed out of the magazines by the levers (214) (216) on the mechanism side. When the lever (214) slides from the mechanism side ❶, the lever (216) rotates clockwise ❷. With a 12 cm disc, this rotation pushes the circumference of the disc and pushes it out ❹.



MECHANISM OPERATION DESCRIPTION

(1) Disc loading

The disc loading operation of the mechanism starts with the rotation of motor M3 ❺. This power is transmitted via the reduction gear train ❻, and rotates the roller (238) ❼ to make it ready to pull in the disc ejected from the magazine.

On the other hand, the power is also transmitted from the reduction gear train to the pendulum gear (226), rotating the pendulum (215) ❽, rotating the gear (227) ❾, sliding the lever (214) ❿, and rotating the lever (216) ⓫, thereby allowing to push the disc out ⓬ ⓭.

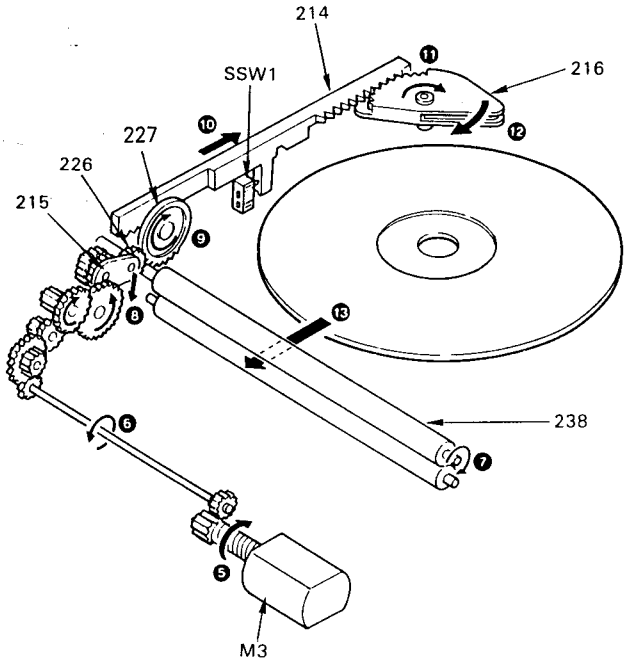
When the lever (214) is slid, SSW1 is turned OFF so that the projection of the lever (216) can be detected.

With the current condition, it is not possible to move the loading mechanism up or down. After the disc is pulled in by the roller (238), the disc is forwarded to the specified position with the same steps as with the DXM-200 (single-product CD mechanism).

* Also refer to the service manuals of the KDC-77R, KDC-76D, etc.

(2) Disc ejection

The disc ejection into the magazine follows the reverse steps to the loading operation steps. The disc ejected by the roller (238) of the loading mechanism is placed to the specified position by the holding plate spring inside the magazine. At this time, the lever (216) will not interfere with the disc because it has already been returned to the original position by the reversed loading operation.

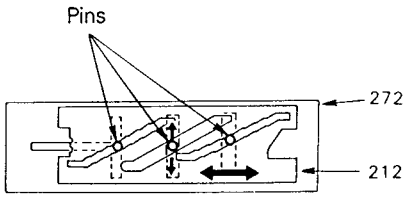


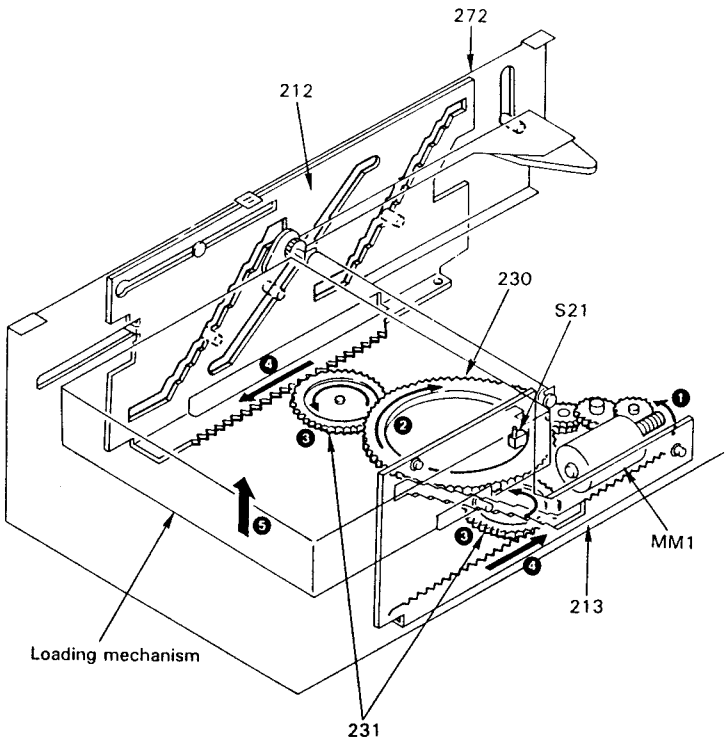
4. Up/down movement of loading mechanism

The movement is provided by the pins which pierce both of the fixed plates with vertical long grooves (272) (702) and the slide plates with oblique long grooves (212) (213). When the slide plates (212) (213) slide to the left or right, the pins move up or down along the long grooves on the fixed plates (272) (702).

With this mechanism, the oblique long grooves on the slide plates have staircase shapes. A total of five pins are projected from the mechanism.

When motor MM1 rotates ❶, the gear (230) is rotated via the reduction gear train ❷. The rotation of the gear (230) rotates the gear (231) meshed to it ❸, thereby driving the slide plates (212) (213) ❹ and moving the loading mechanism. This action is reversed when the motor rotates in the reverse direction. The position of the mechanism is detected with the hole on the gear (230).





ADJUSTMENT

Assembling the mechanism

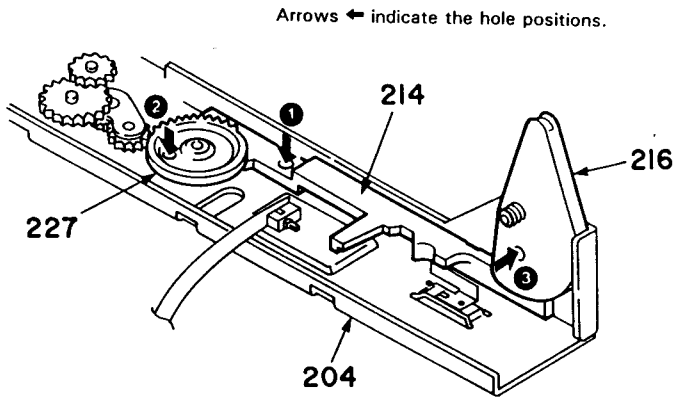
(1) Chassis ass'y

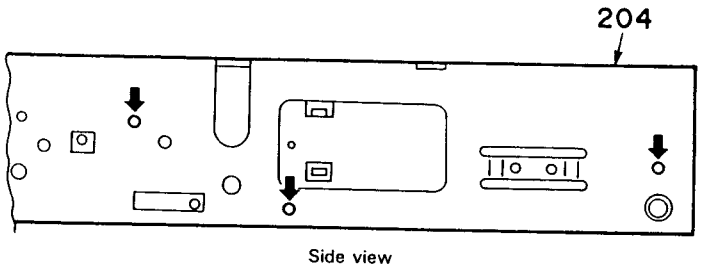
[Description]

Assemble this ass'y by aligning the holes of the gear (227), slider (214) and lever (216) with the hole on the chassis (204).

[Assembly operation]

1. Align the hole of the chassis (204) with that of the slider (214). ❶
2. Attach the gear (227) by aligning the hole of the gear (227) with that of the chassis (204). ❷
3. Attach the lever (216) by aligning the hole of the lever (216) with that of the chassis (204). ❸





Side view

(2) Chassis caulking ass'y motor

[Description]

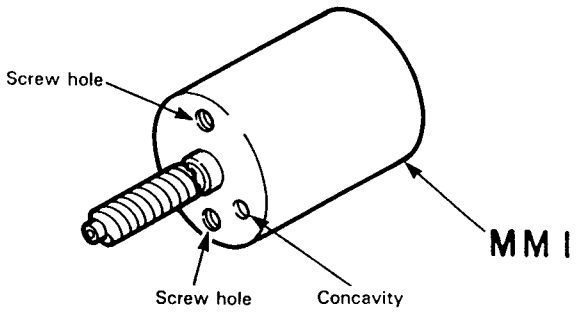
Attach the motor by taking care of the position.

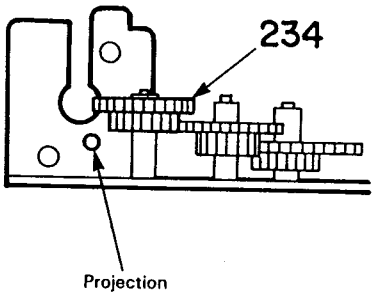
[Assembly operation]

Attach by aligning the projection on the chassis caulking ass'y (205) and the concavity on the motor (MM1).

[Service note]

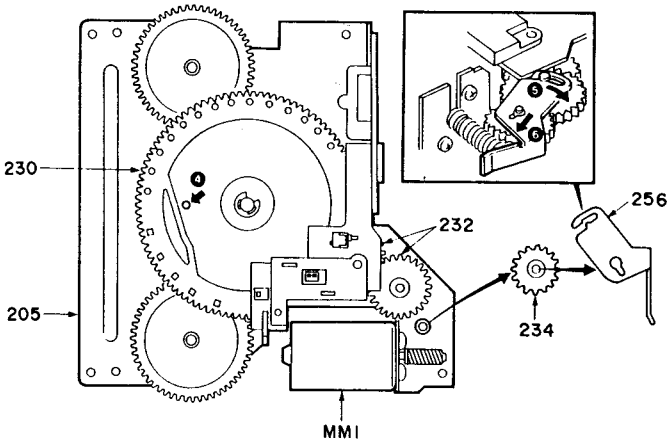
If the motor position is inverted by 180o, the worm gear (235) of the motor comes in violent contact with the reduction gear (234) and the motor cannot rotate.

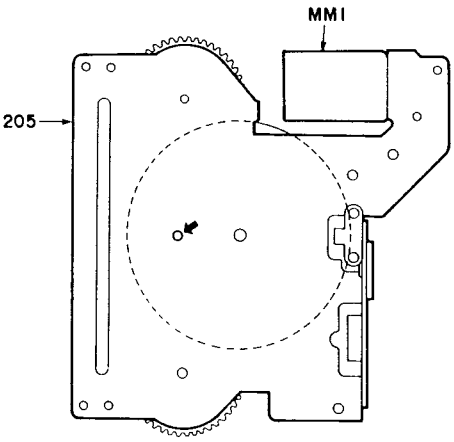




ADJUSTMENT

(3) Chassis caulking ass'y gear (230)
[Description]
Adjust the position of the gear (230).
[Assembly operation]
Rotate the gear (230) to align the hole of the gear (230) with that of the chassis caulking ass'y (205). ❹
[Service note]
The gear (230) will not move if the reduction gears (234) (232) and motor are fixed.
The gear (230) can be moved freely by removing the fixing hardware (256) and removing the gear (234).
To remove the fixing hardware (256), rotate it in the direction ❺ and move in the direction ❻.
After aligning the position of the gear of the hole (230), attach the gear (234) then the fixing hardware (256).

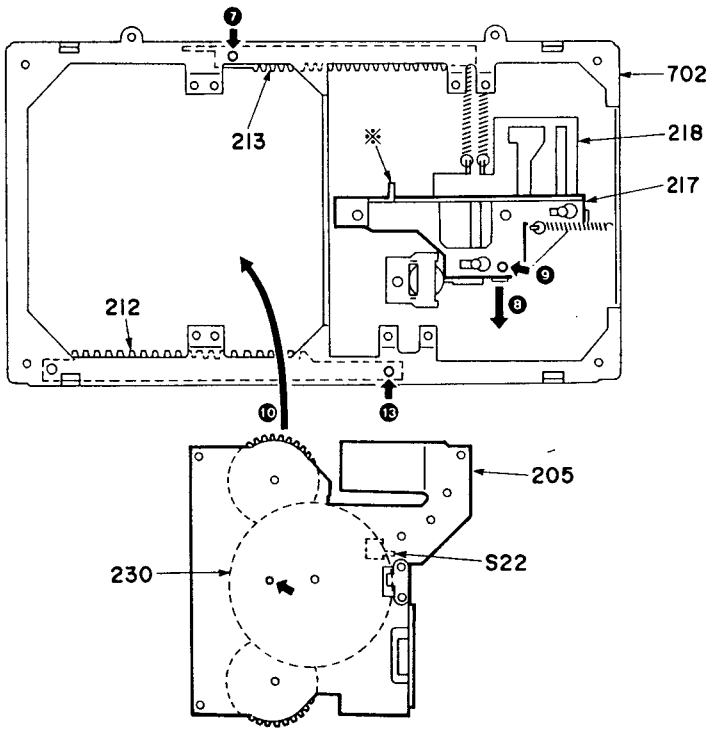




Bottom

(4) Chassis caulking ass'y
[Description]
Attach the chassis caulking ass'y (205) onto the chassis (702) by aligning the hole on the slider ass'y (213) with that on the chassis (702).
[Assembly operation]
1. Slide the slider ass'y (213) to align the hole of the slider ass'y (213) with that of the chassis (702). ❼
2. By pulling the slider (218) toward the direction of ❽, move the slider (218) until the hole on it is aligned with that on the lever ass'y (217). ❾
3. Attach the chassis caulking ass'y (205) onto the chassis (702). ❿

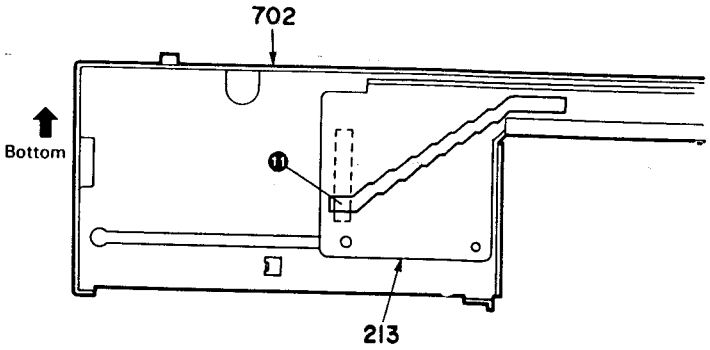
[Service note]
If assembly operation step 2 is not executed, the switch (S22) will come in contact with the section marked (※), and the switch (S22) will be damaged.
To make the assembly operation easier, it is recommended to pull the slider (218) towards the direction of ❽ to move it until the positions of the holes are aligned and to insert a pin, etc., into the aligned holes ❾ so that the slider does not return even when your hand releases it.
After attaching the chassis caulking ass'y (205), be sure to remove the pin, etc.

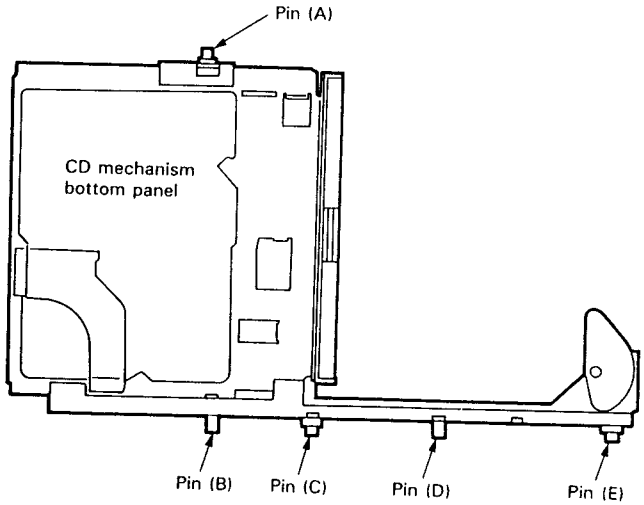


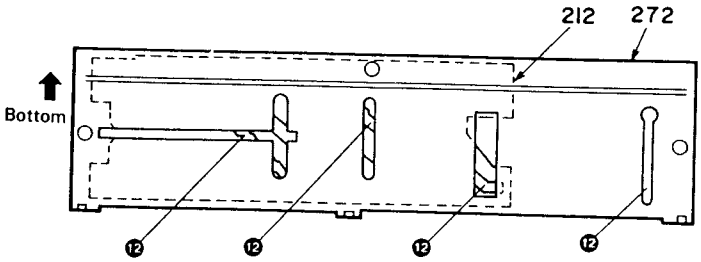
ADJUSTMENT

(5) Assembly of CD mechanism and chassis (272)
[Description]
Assemble the CD mechanism, chassis (272) and slider (212) together by aligning the hole of the slider (212) with that of the chassis (272).
[Assembly operation]

1. Insert the pin (A) projected from the CD mechanism into the intersection holes of the chassis (702) and slider ass'y (213). ⓫
2. Insert the pins (B) (C) (D) (E) projected from the CD mechanism into the intersection holes of the chassis (272) and slider (212). ⓬
3. Slide the slider (212) to align the hole of the slider (212) with that of the chassis (272). ⓭
4. Attach the chassis (272) to the chassis (702).





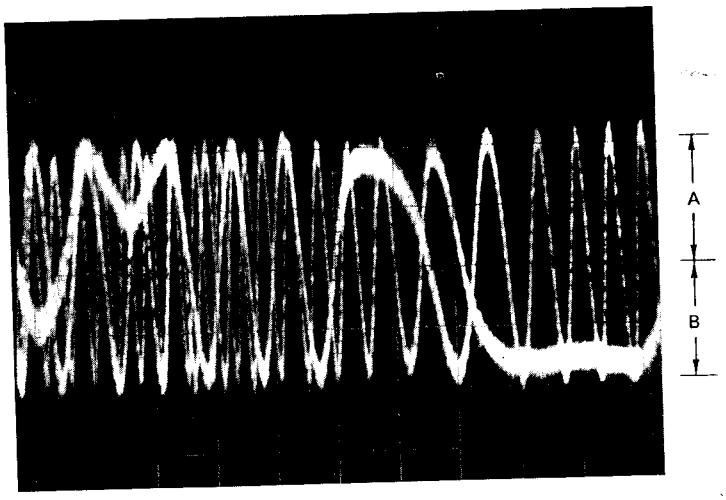


ADJUSTMENT

1. Tracking offset adjustment

1. Connect a test jumper wire between the test point (TEST2) and (+5 V).
2. Connect a test jumper wire between the test point (TOFF) and (Vref).
3. Connect an oscilloscope between the test point (TE) and (Vref).
4. Put the set into play mode by loading the disc.
5. Adjust VR2 so that the oscilloscope reading is symmetrical in relation to 0 V.
6. After adjusting, reset 1 and 2 as original.

Volt/Div: 200 mV Timer/Div: 0.5 μsec.

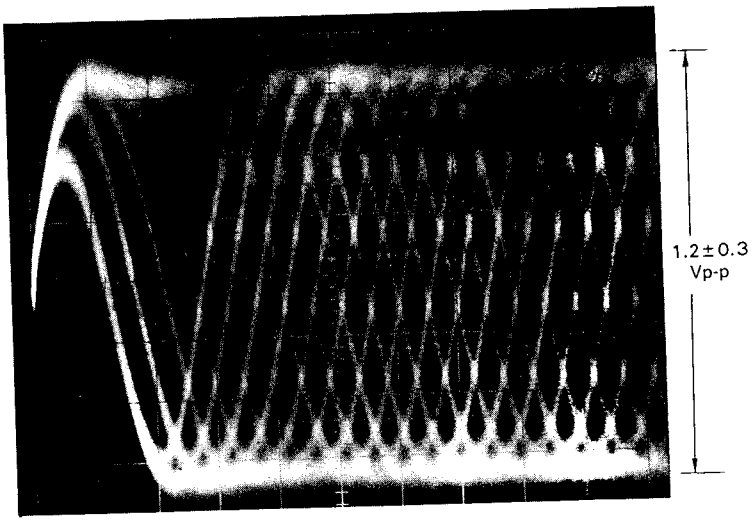


A = B

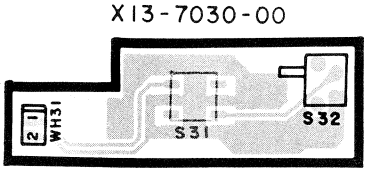
2. Focus offset adjustment

1. Connect an oscilloscope to the test point (RF).
2. Put the set into play mode by loading the disc.
3. Adjust VR1 so that the oscilloscope waveform eye pattern is good.
   A good eye pattern means that the diamond shape (◇) in the center of the oscilloscope can be clearly distinguished.

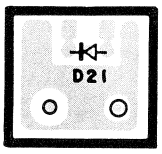
Volt/Div: 200 mV Timer/Div: 0.5μsec.



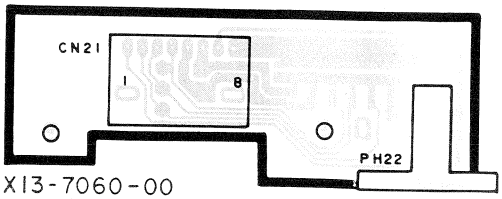
PCBOARD (COMPONENT SIDE VIEW)



SWITCH UNIT
(X13-7030-00)

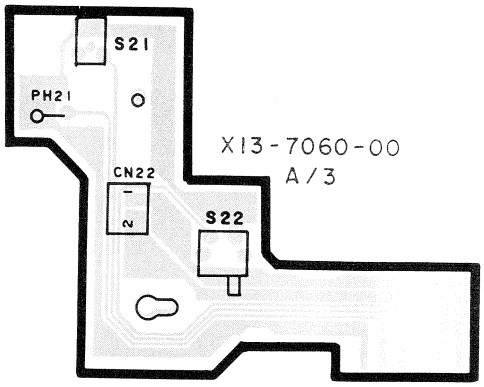


X13-7060-00
C/3

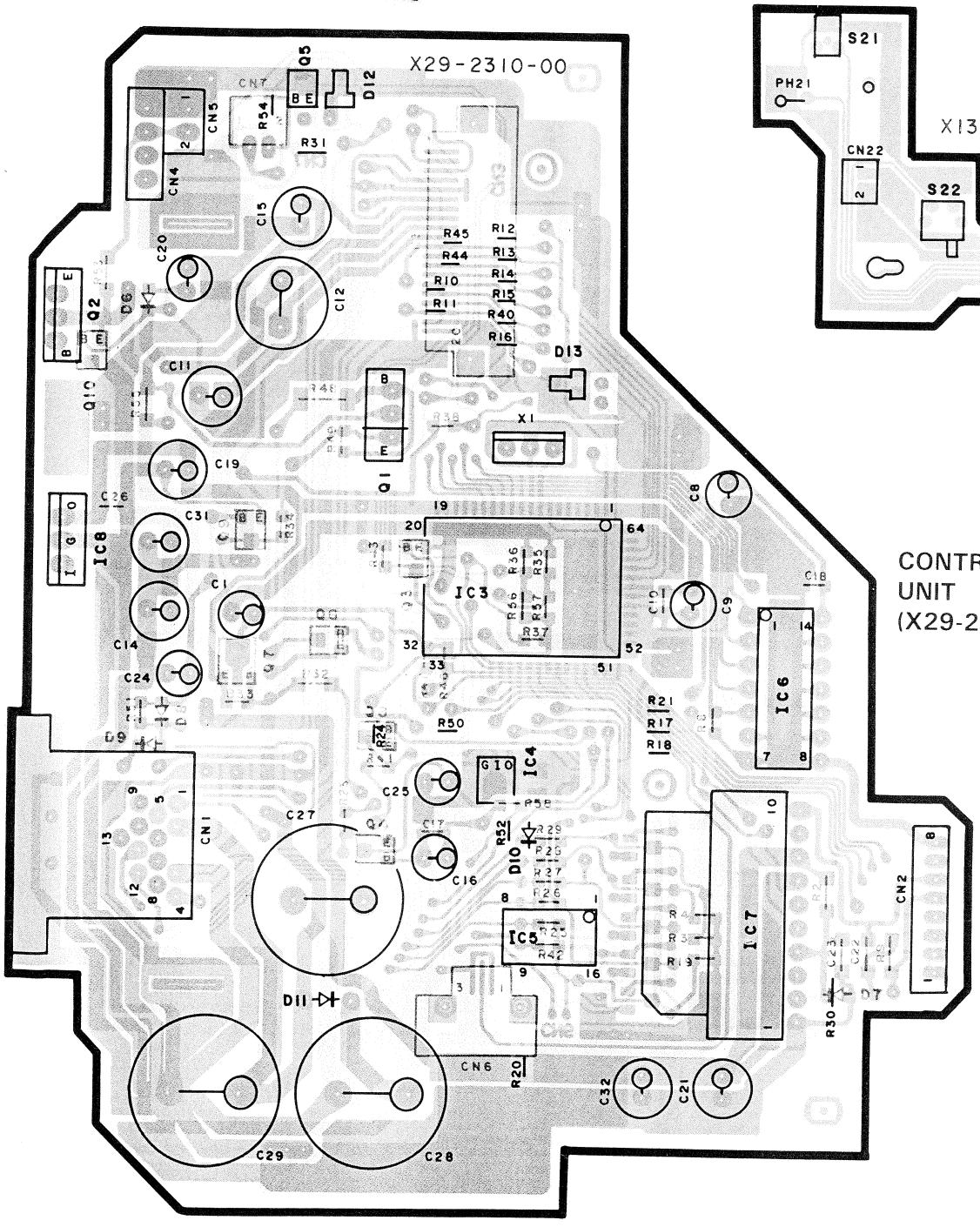


X13-7060-00
B/3

SUB-CIRCUIT UNIT
(X13-7060-00)

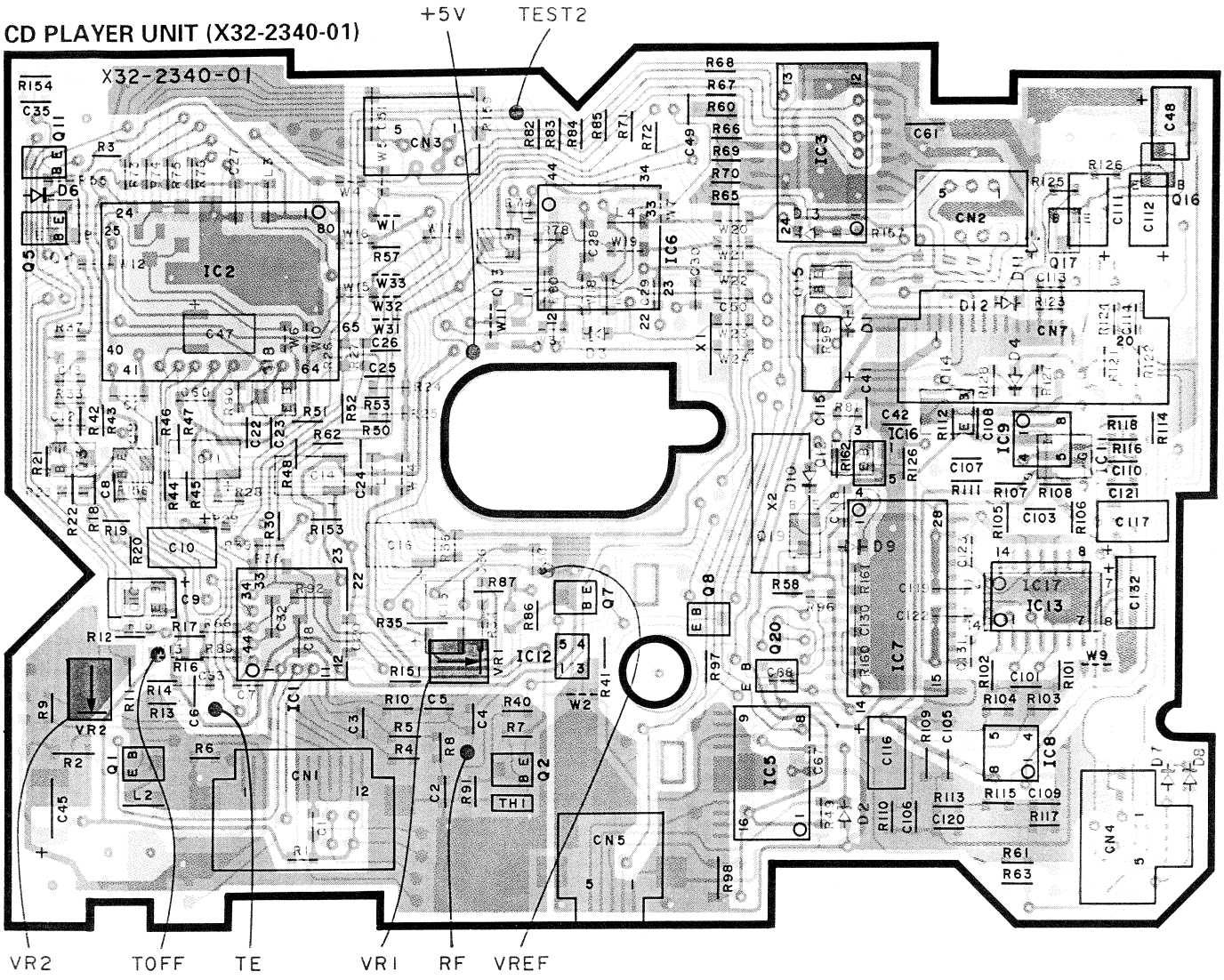


X13-7060-00
A/3

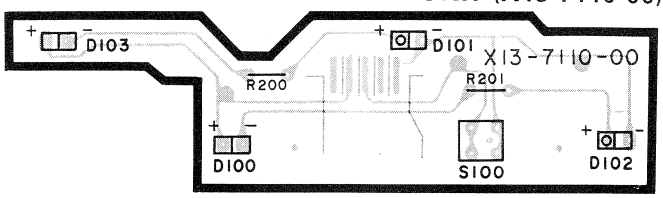


CONTROL CIRCUIT
UNIT
(X29-2310-00)

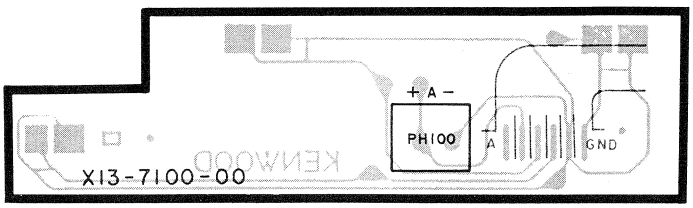
CD PLAYER UNIT (X32-2340-01)



SUB CIRCUIT UNIT (X13-7110-00)



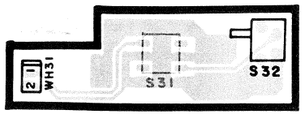
SUB CIRCUIT UNIT (X13-7100-00)



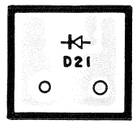
Refer to the schematic diagram for the values of resistors and capacitors.

PCBOARD (COMPONENT SIDE VIEW)

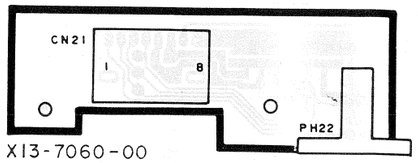
X13-7030-00



SWITCH UNIT
(X13-7030-00)

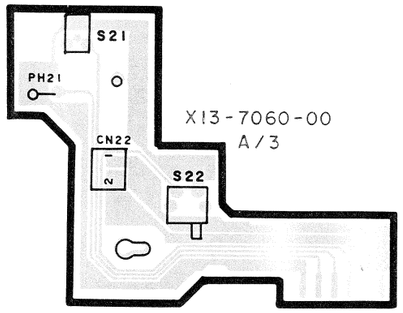


X13-7060-00
C/3

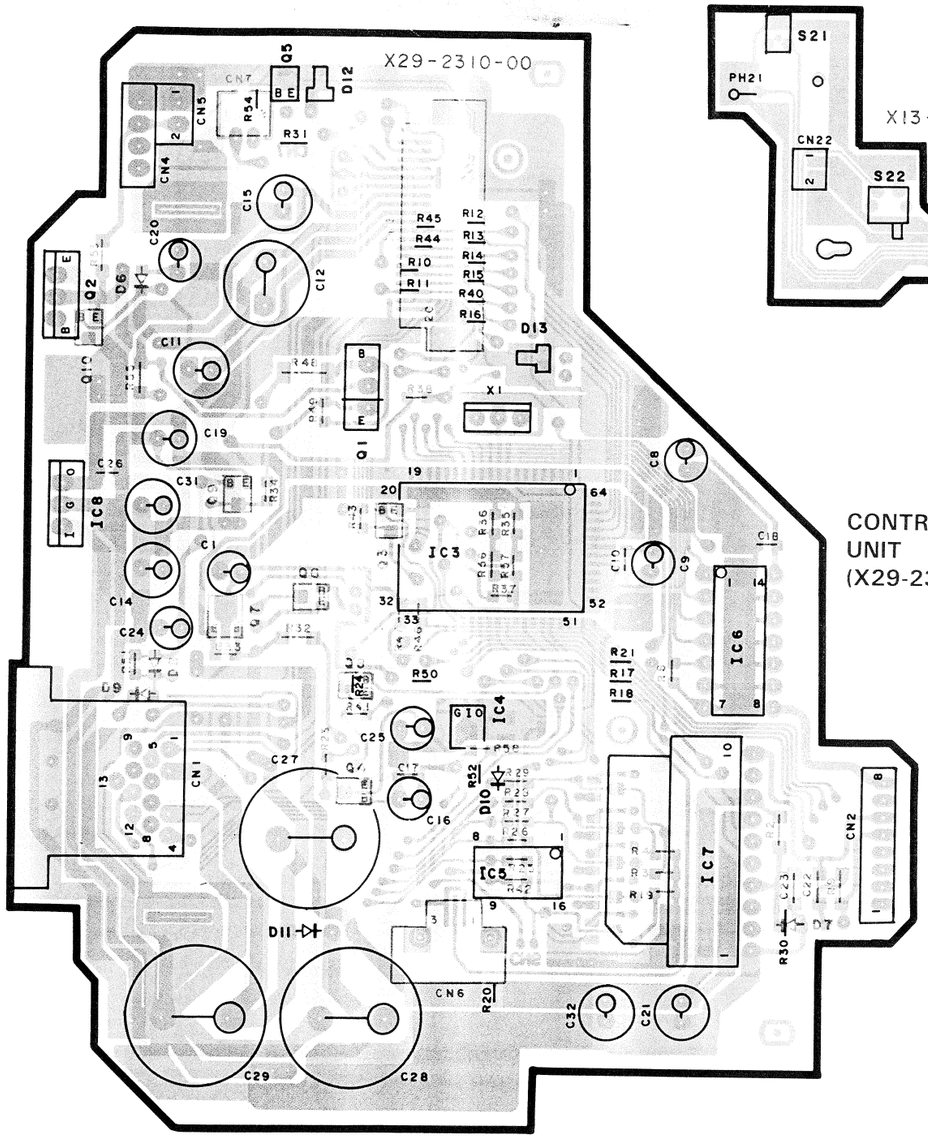


X13-7060-00
B/3

SUB-CIRCUIT UNIT
(X13-7060-00)

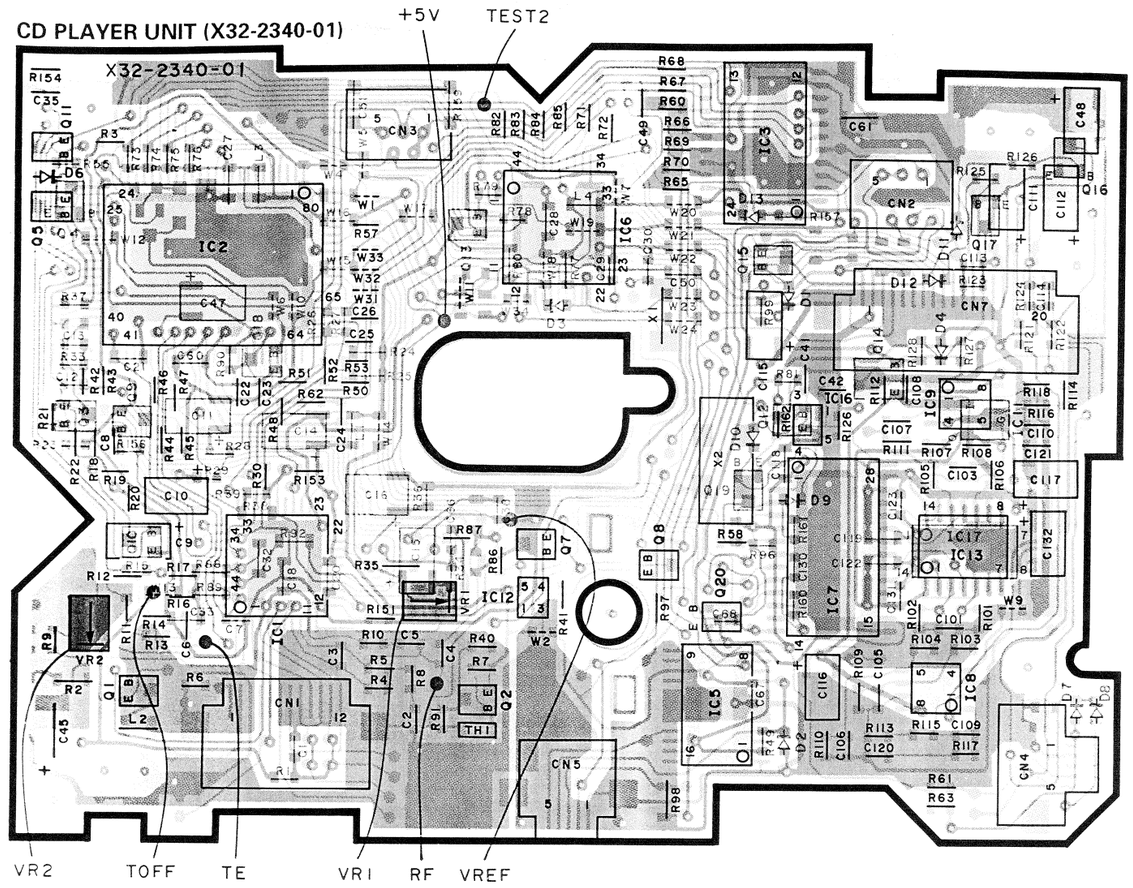


X13-7060-00
A/3



CONTROL CIRCUIT
UNIT
(X29-2310-00)

CD PLAYER UNIT (X32-2340-01)


+5V
TEST2
X32-2340-01
R154
C35
Q11
R3
D6
Q5
IC2
C47
R57
W33
W32
W31
C26
C25
R51
R52
R53
R62
R50
C22
C23
R48
C24
R42
R43
R46
R47
R44
R45
R30
R153
C16
C10
C9
R12
R17
R16
R14
R13
C6
IC1
C3
R87
R35
R86
Q7
IC12
R151
R10
C5
R5
R4
R8
R40
R7
C4
R91
TH1
Q2
R9
VR2
R2
Q1
L2
C45
CN1
R6
C2
CN5
R98
R68
R67
R60
R66
R69
R70
R65
IC3
C61
C48
Q16
C111
C112
R126
R125
CN2
Q17
C113
D11
D13
R151
W1
W2
W20
W21
W22
W23
W24
IC6
C28
C29
C30
C49
L1
L3
L4
L5
L6
L7
L8
L9
L10
L11
L12
L13
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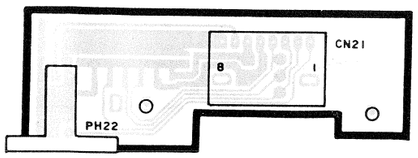
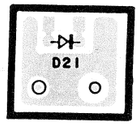
L74
L75
L76
L77
L78
L79
L80
C41
C42
IC16
IC9
C108
R112
R118
R116
R114
C107
R111
R107
R108
C103
R106
C121
C117
C110
C132
IC17
IC13
IC7
R105
R102
R101
R104
R103
C101
C102
IC8
R109
C105
R115
C109
R117
C120
R110
C106
C116
C104
R113
R61
R63
CN4
D7
D8
D9
D10
D12
D14
D15
D16
R123
R124
R122
R121
R120
R119
R127
R128
R129
R130
R131
R132
R133
R134
R135
R136
R137
R138
R139
R140
R141
R142
R143
R144
R145
R146
R147
R148
R149
R150
R152
R155
R156
R157
R158
R159
R160
R161
R162
R163
R164
R165
R166
R167
R168
R169

PCBOARD (FOIL SIDE VIEW)

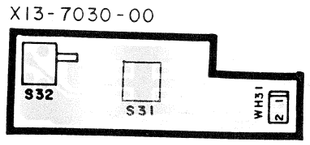


X13-7060-00
B/3



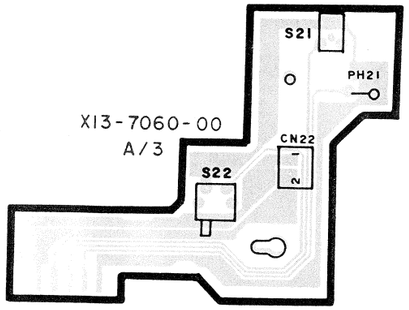
X13-7060-00
C/3

X13-7030-00

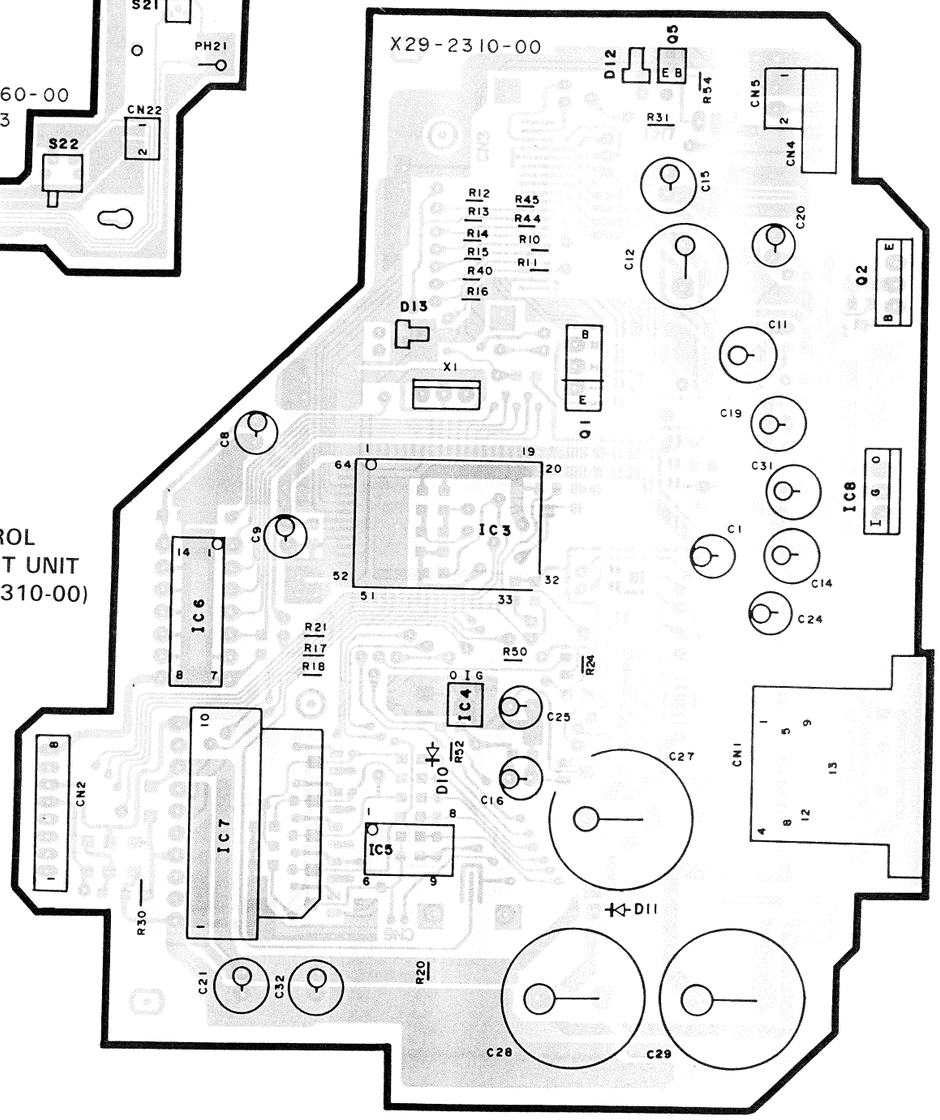


SWITCH UNIT
(X13-7030-00)

SUB-CIRCUIT UNIT
(X13-7060-00)

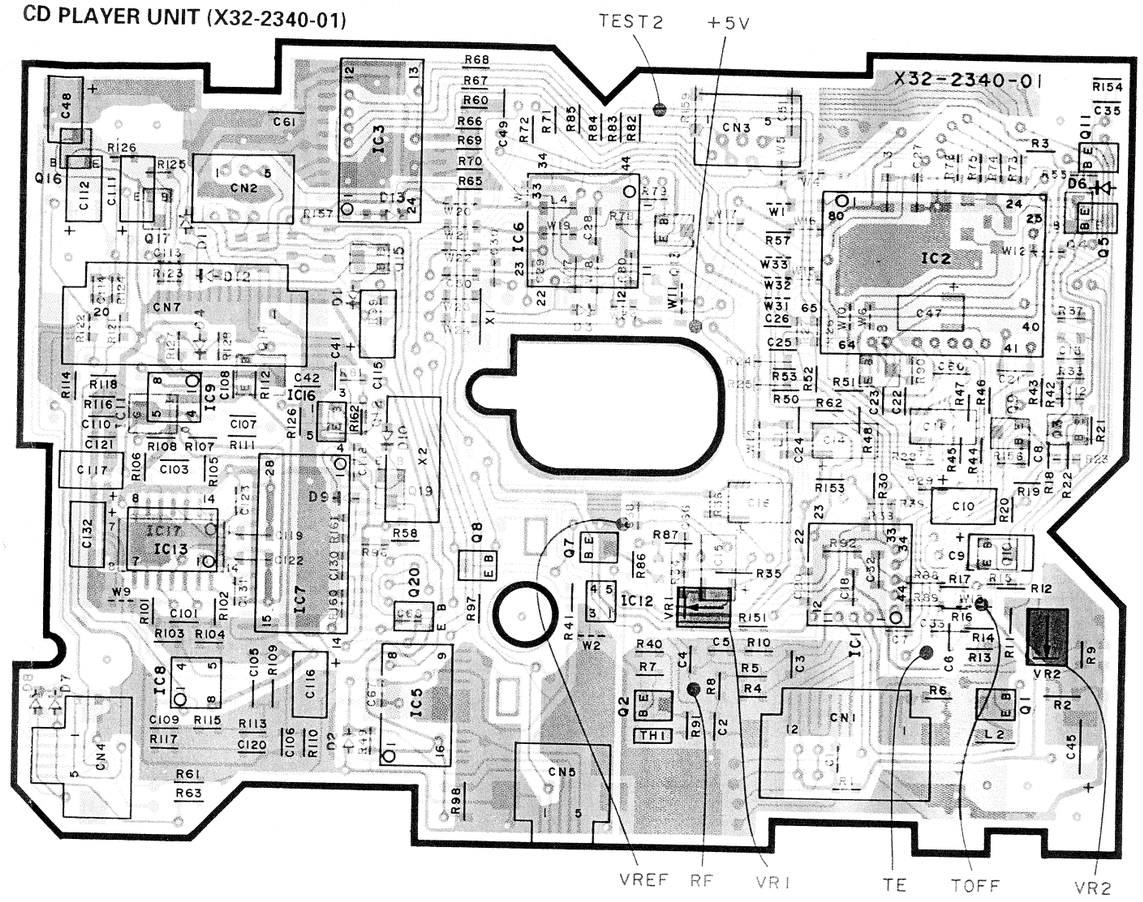


X13-7060-00
A/3

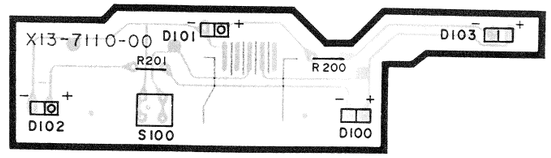


CONTROL
CIRCUIT UNIT
(X29-2310-00)

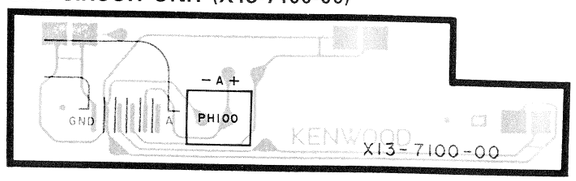
CD PLAYER UNIT (X32-2340-01)



SUB CIRCUIT UNIT (X13-7110-00)

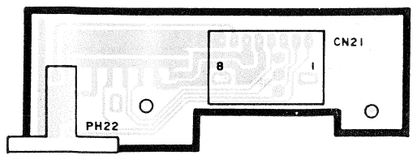


SUB CIRCUIT UNIT (X13-7100-00)

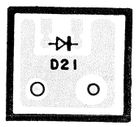


Refer to the schematic diagram for the values of resistors and capacitors.

PCBOARD (FOIL SIDE VIEW)

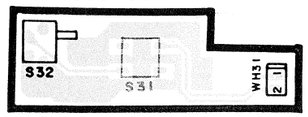


X13-7060-00
B/3



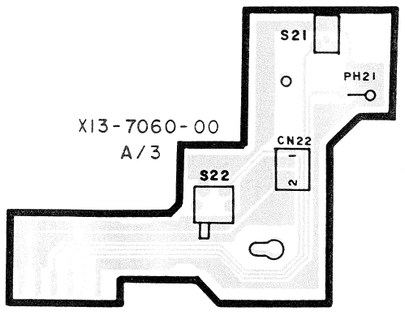
X13-7060-00
C/3

X13-7030-00

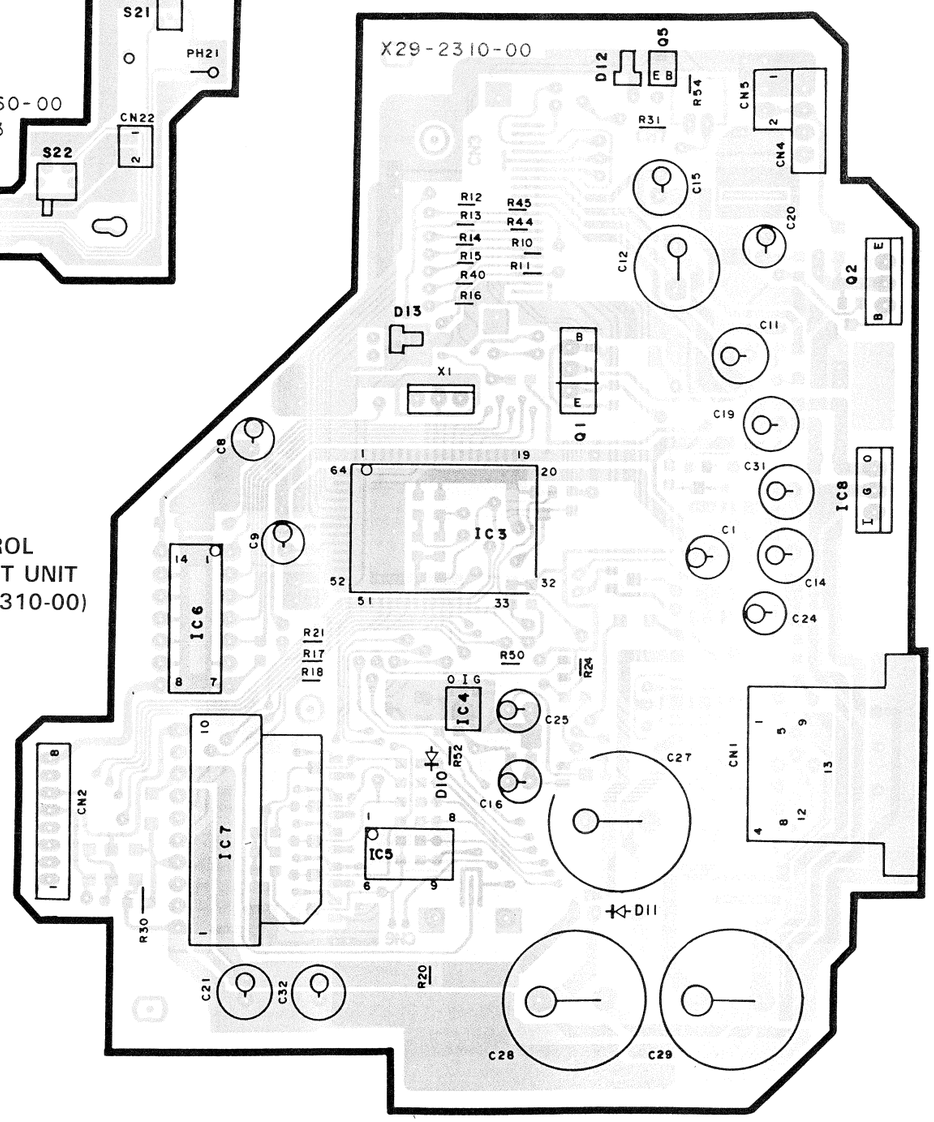


SWITCH UNIT
(X13-7030-00)

SUB-CIRCUIT UNIT
(X13-7060-00)

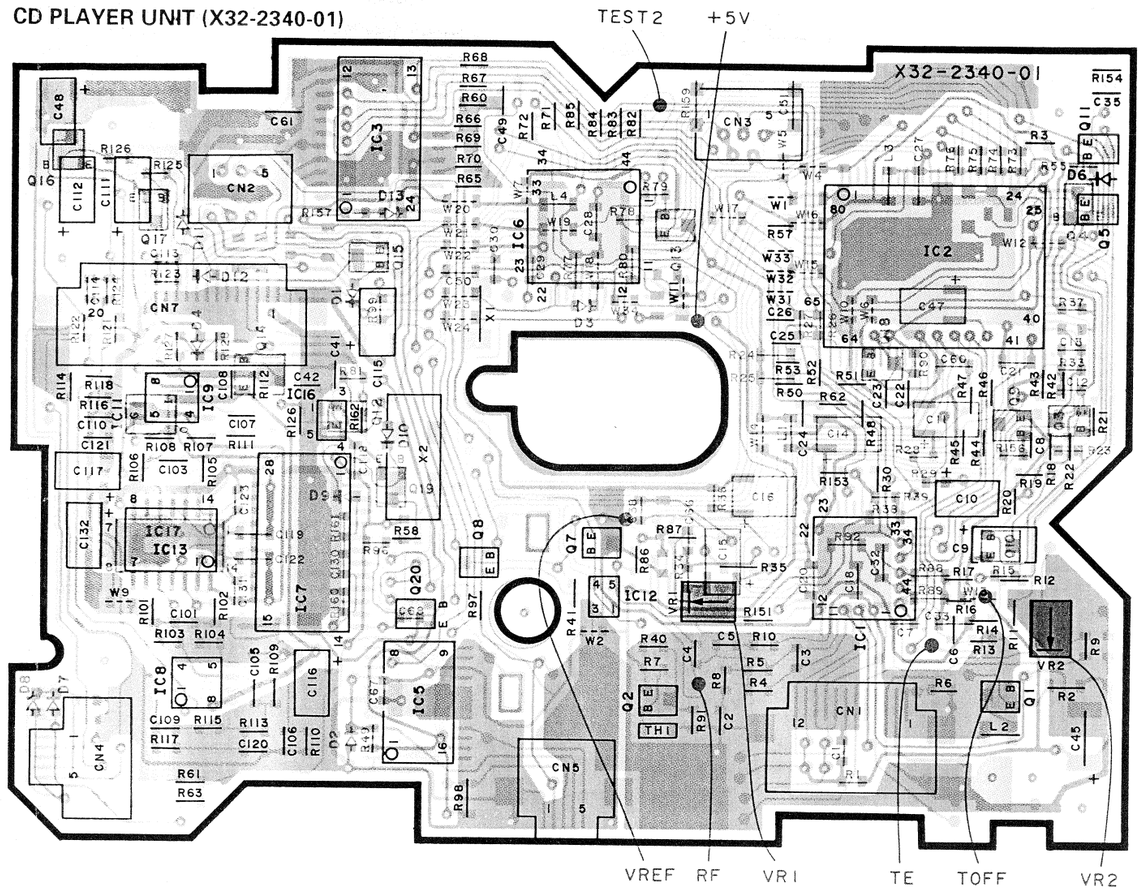


X13-7060-00
A/3

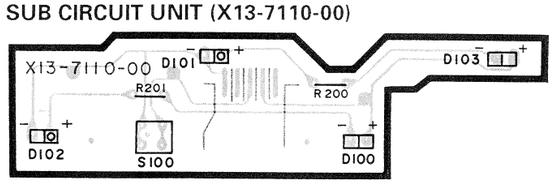


CONTROL
CIRCUIT UNIT
(X29-2310-00)

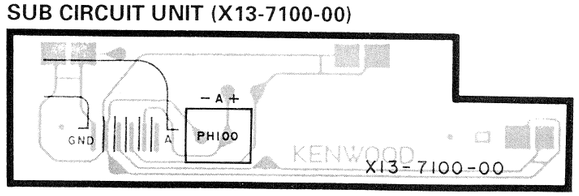
CD PLAYER UNIT (X32-2340-01)



SUB CIRCUIT UNIT (X13-7110-00)



SUB CIRCUIT UNIT (X13-7100-00)



Refer to the schematic diagram for the values of resistors and capacitors.

CD MECHA. ASS'Y (X92-1660-0X)
(X32-2340-01)

SIGNAL LINE
GND LINE
+B LINE

IC2
SIGNAL PROCESSOR

IC6
MAIN CPU

IC7

IC8 (1/2)

IC8 (2/2)

IC9 (1/2)

IC9 (2/2)

IC11

IC12

IC13

IC16

IC17

IC5
MOTOR DRIVER

IC3
MOTOR DRIVER

LPF

MUTE

AVR

VR1
FOCUS OFFSET

CN7

CN4

CN5

from X29-CN3

PH100

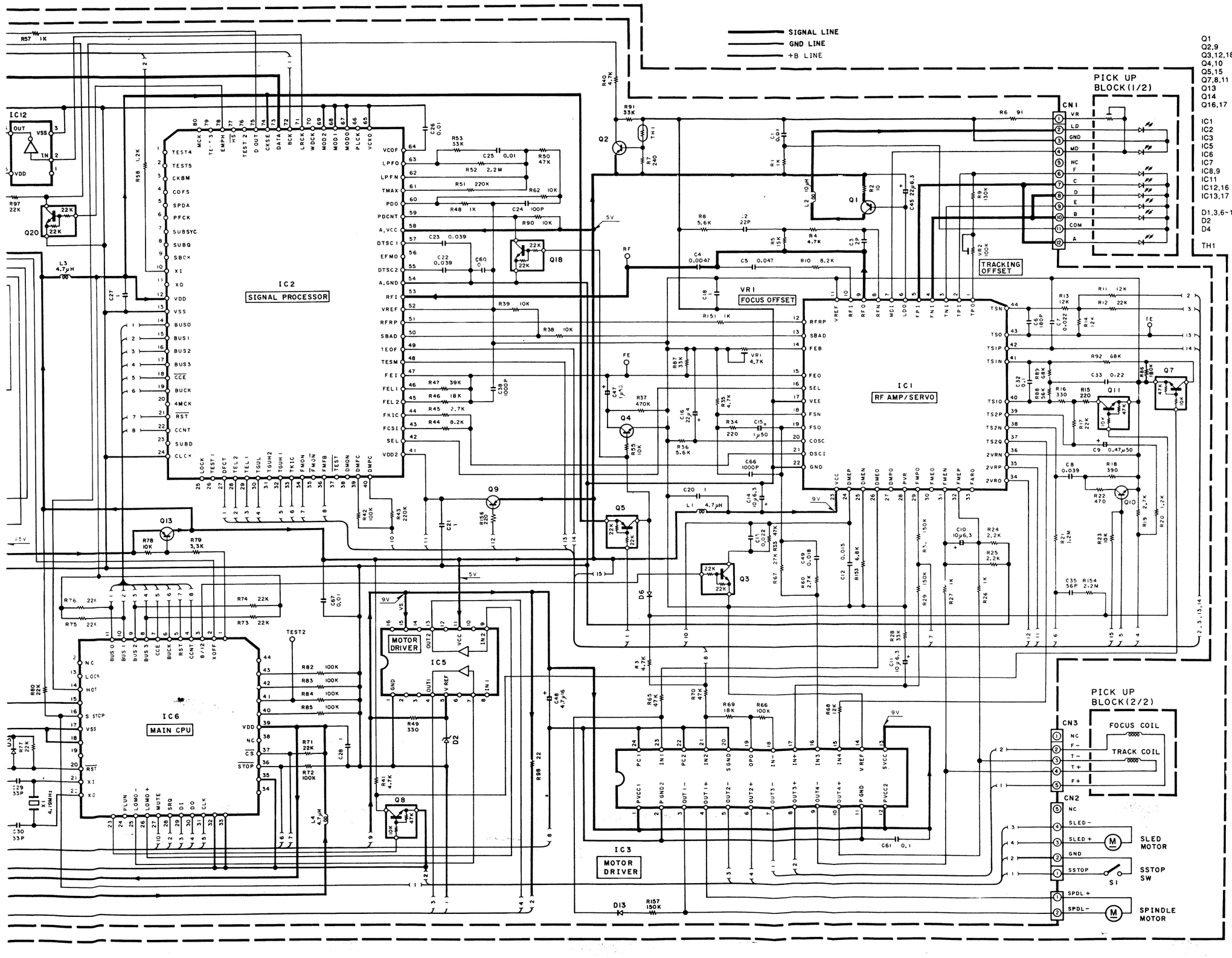
CLAMP SW

LOAD MOTOR

M3

X1 4.19MHz

X2 16.9344MHz



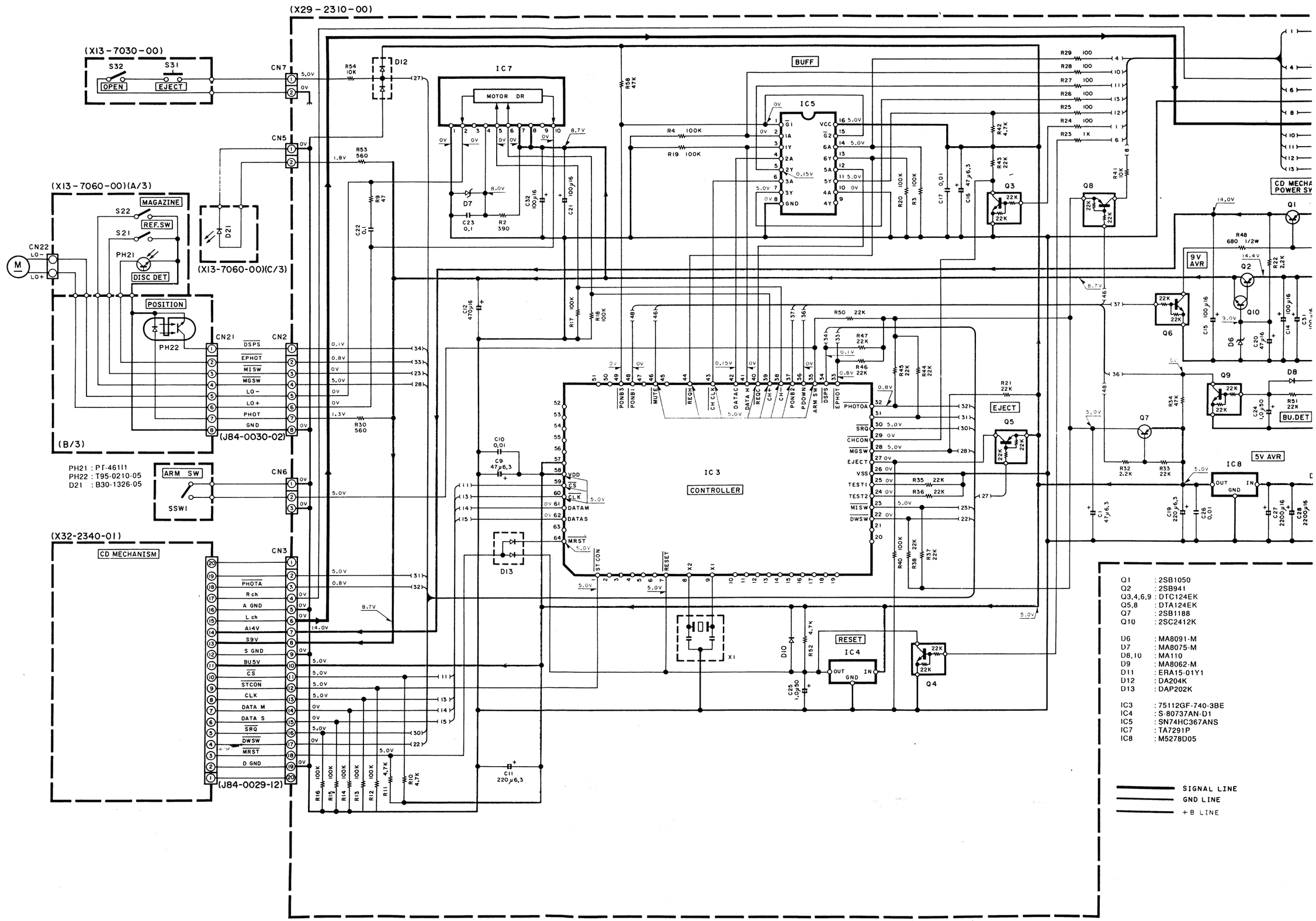
Q1	:2SB624(BV3)
Q2,9	:2SA1037K
Q3,12,18~20	:DTC124EK
Q4,10	:2SC2412K
Q5,15	:DTA124EK
Q7,8,11	:DTC114YK
Q13	:2SA1362(Y)
Q14	:2SD1624
Q16,17	:2SD1757K
IC1	:TA8191F
IC2	:TC9236AF
IC3	:AN8388SR
IC5	:TA7291F
IC6	:75008GB-696-3B4
IC7	:SM5871AS
IC8,9	:NJM4565M
IC11	:TA78L05F
IC12,16	:TC7SU04F
IC13,17	:TC74AC04F
D1,3,6~13	:MA110
D2	:MA8062
D4	:MA8091
TH1	:NT732BTD33K

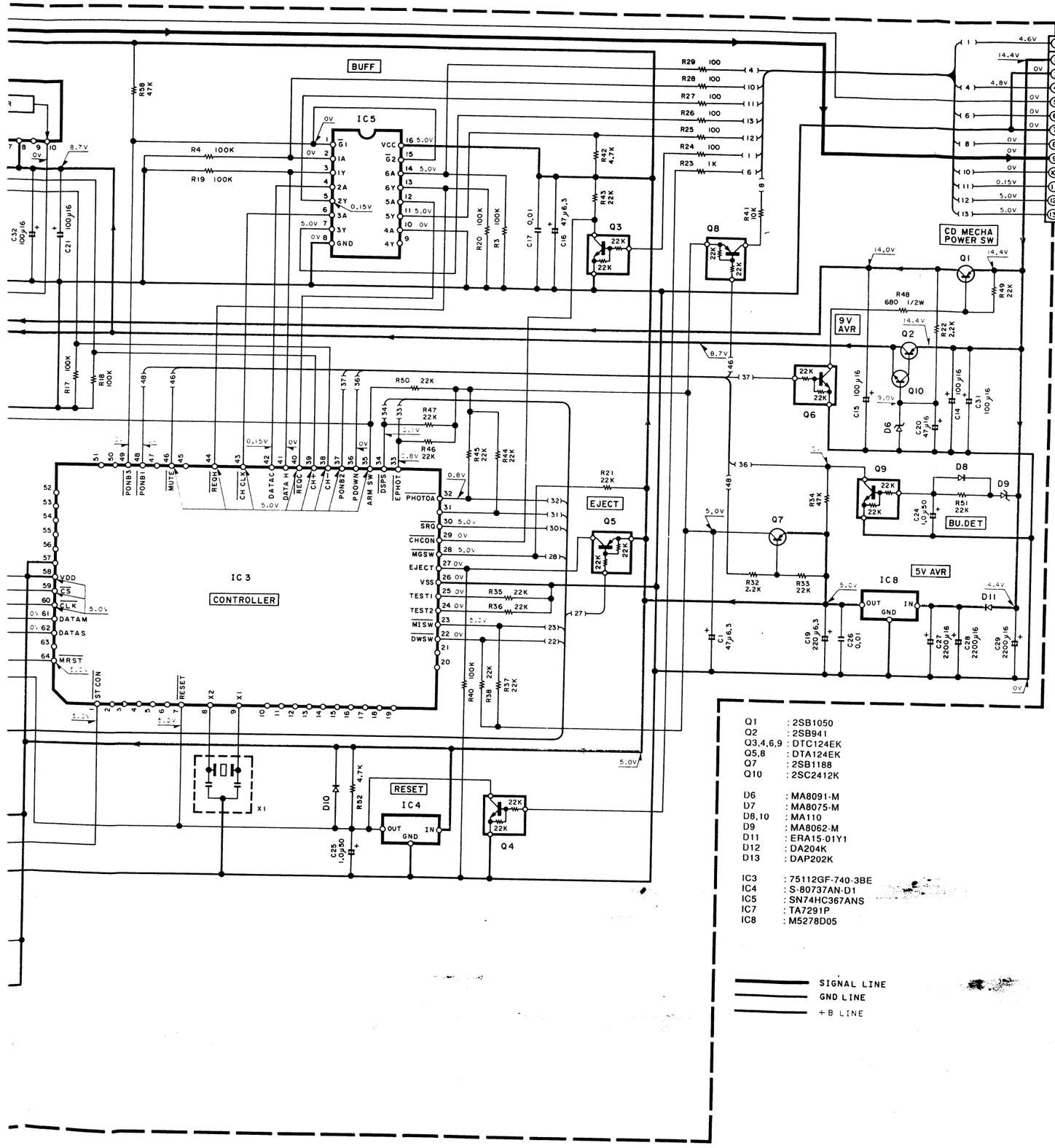
- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ! Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

KDC-C601

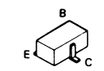
KENWOOD


(X29-2310-00)
(X13-7030-00)
S32
S31
OPEN
EJECT
CN7
CN5
(X13-7060-00)(A/3)
MAGAZINE
S22
REF.SW
S21
PH21
DISC DET
CN22
M
LO-
LO+
POSITION
PH22
(X13-7060-00)(C/3)
D21
CN21
CN2
DSPS
EPHOT
MISW
MGSW
LO-
LO+
PHOT
GND
(J84-0030-02)
(B/3)
PH21 : PT-46111
PH22 : T95-0210-05
D21 : B30-1326-05
ARM SW
SSW1
CN6
(X32-2340-01)
CD MECHANISM
CN3
PHOTA
Rch
A GND
Lch
A14V
S9V
S GND
BU5V
CS
STCON
CLK
DATA M
DATA S
SRQ
DWSW
MRST
D GND
(J84-0029-12)
D12
R54 10K
R53 560
R58 47K
R9 47
C22 0.1
C12 470µ16
R17 100K
R18 100K
C10 0.01
C9 47µ6.3
C11 220µ6.3
D13
IC7
MOTOR DR
D7
C23 0.1
R2 390
C33 100µ16
C21 100µ16
R30 560
R16 100K
R15 100K
R14 100K
R13 100K
R12 100K
R11 4.7K
R10 4.7K
BUFF
IC5
R4 100K
R19 100K
R20 100K
R3 100K
C17 0.01
C16 47µ6.3
R42 4.7K
R43 22K
Q3
R29 100
R28 100
R27 100
R26 100
R25 100
R24 100
R23 1K
R41 10K
Q8
CD MECHA
POWER SV
Q1
R48 680 1/2W
9V AVR
Q2
R22 2.2K
Q10
Q6
D6
C15 100µ16
C20 47µ16
C14 100µ16
C31 100µ16
R50 22K
R47 22K
R46 22K
R45 22K
R44 22K
R21 22K
EJECT
Q5
Q9
D8
R34 47K
C24 1.0µ50
BU.DET
Q7
R32 2.2K
R33 22K
5V AVR
IC8
C19 220µ6.3
C26 0.01
C27 2200µ16
C28 2200µ16
C13 47µ6.3
IC3
CONTROLLER
R35 22K
R36 22K
R40 100K
R38 22K
R37 22K
X1
D10
R52 4.7K
RESET
IC4
C25 1.0µ50
Q4
Q1 : 2SB1050
Q2 : 2SB941
Q3,4,6,9 : DTC124EK
Q5,8 : DTA124EK
Q7 : 2SB1188
Q10 : 2SC2412K
D6 : MA8091-M
D7 : MA8075-M
D8,10 : MA110
D9 : MA8062-M
D11 : ERA15-01Y1
D12 : DA204K
D13 : DAP202K
IC3 : 75112GF-740-3BE
IC4 : S-80737AN-D1
IC5 : SN74HC367ANS
IC7 : TA7291P
IC8 : M5278D05
SIGNAL LINE
GND LINE
+B LINE



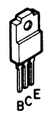
PIN No.	PIN NAME
1	CD CON
2	BU +14V
3	GND
4	REQH
5	R ch
6	CHRST
7	A GND
8	CH MUTE
9	L ch
10	DATAH
11	DATAC
12	REQC
13	CHCLK

DTA124EK 2SA1362
DTC114YK 2SB624
DTC124EK 2SC2412K
2SA1037K 2SD1757K

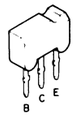


2SB1188
2SD1624

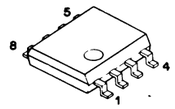
2SB941



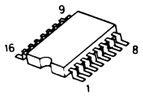
2SB1050



NJM4565MD

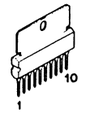


TA7291F

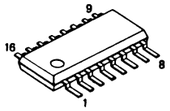


TA78L05F

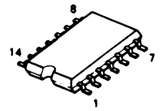
TA7291



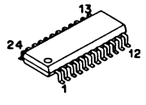
SN74HC367ANS



TC74AC04F



AN8388SR



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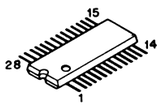

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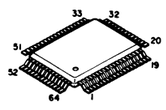
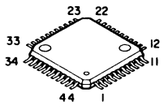
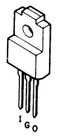


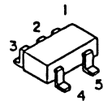
TA8191F
75008GB-696-3B4



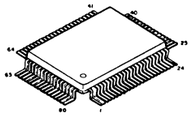
M5278D05



TC7SU04F



TC9236AF

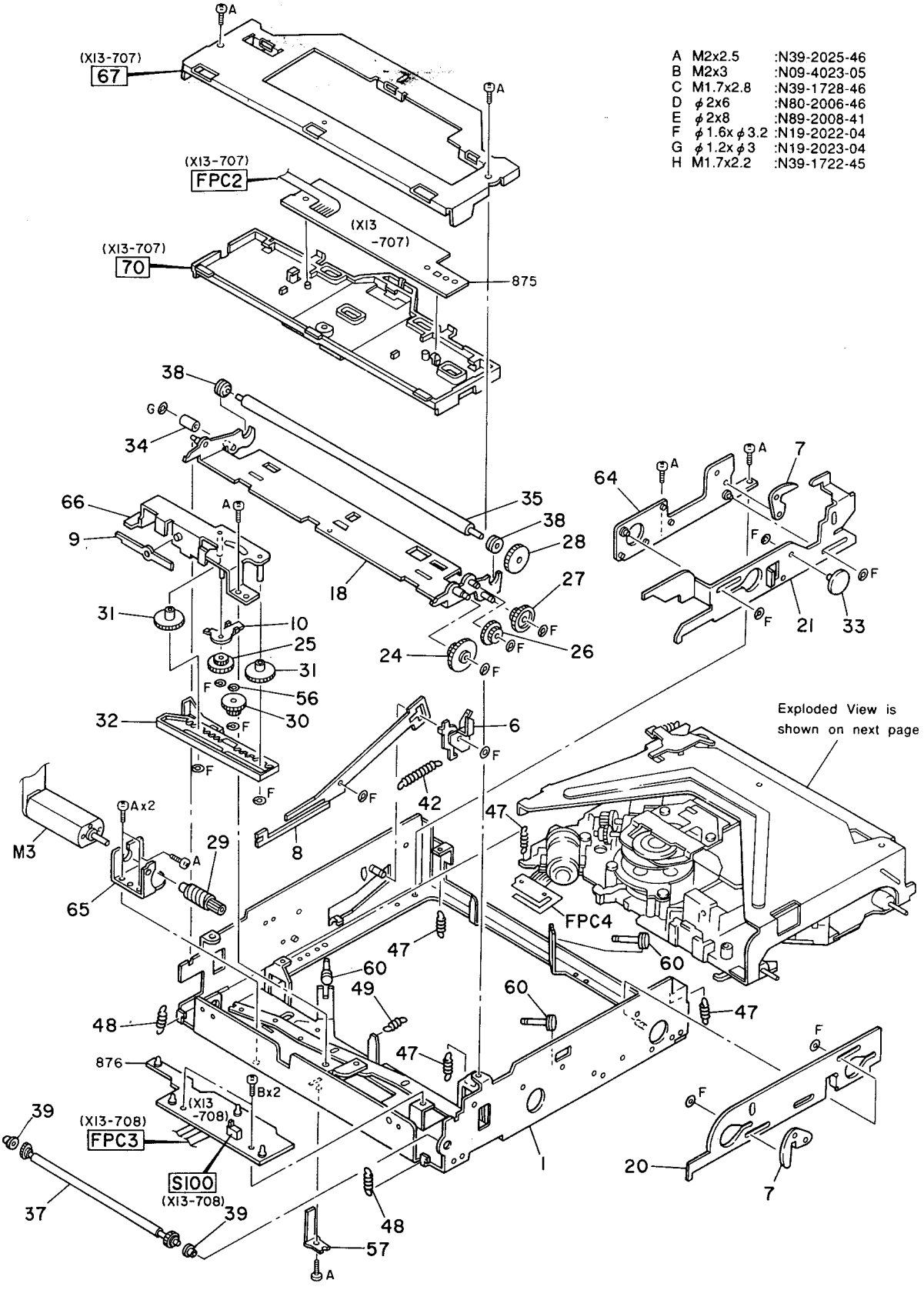


- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ! Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

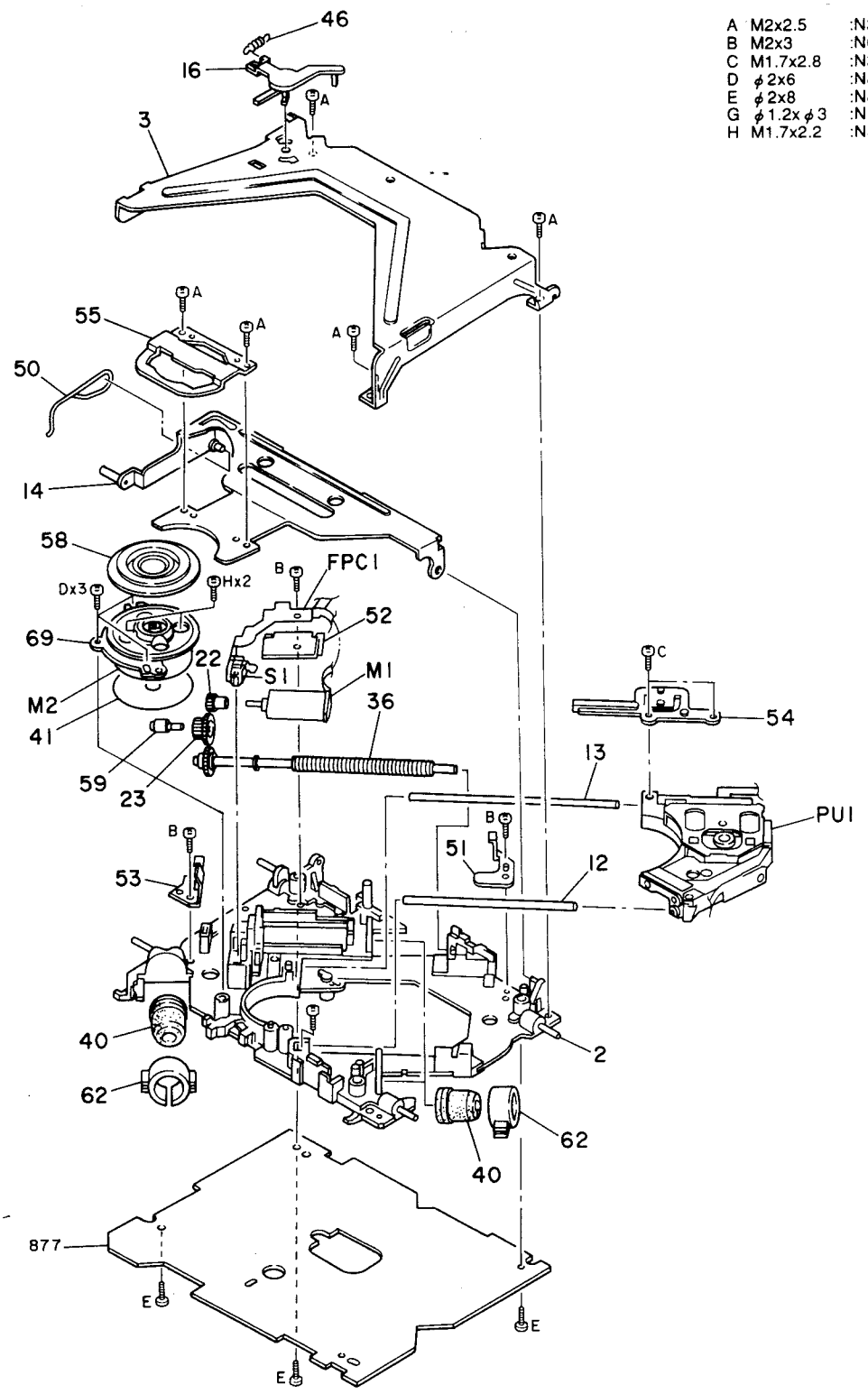
KDC-C601
KENWOOD

EXPLODED VIEW (MECHANISM)



Parts with the exploded numbers larger than 700 are not supplied.

EXPLODED VIEW (MECHANISM)



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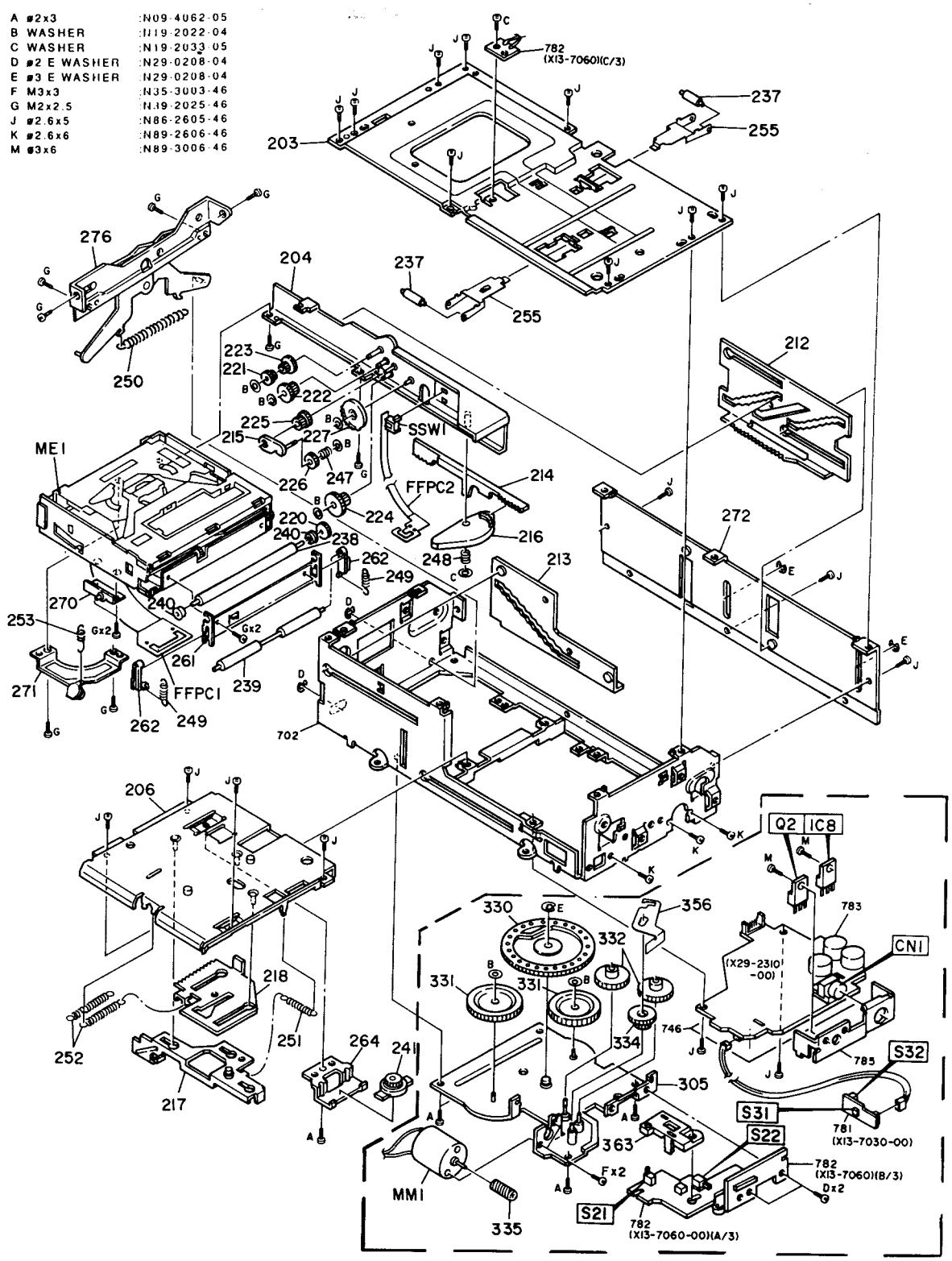
EXPLODED VIEW (UNIT)

A	#2x3	:N09-4062-05
B	WASHER	:N19-2022-04
C	WASHER	:N19-2033-05
D	#2 E WASHER	:N29-0208-04
E	#3 E WASHER	:N29-0208-04
F	M3x3	:N35-3003-46
G	M2x2.5	:N39-2025-46
J	#2.6x5	:N86-2605-46
K	#2.6x6	:N89-2606-46
M	#3x6	:N89-3006-46



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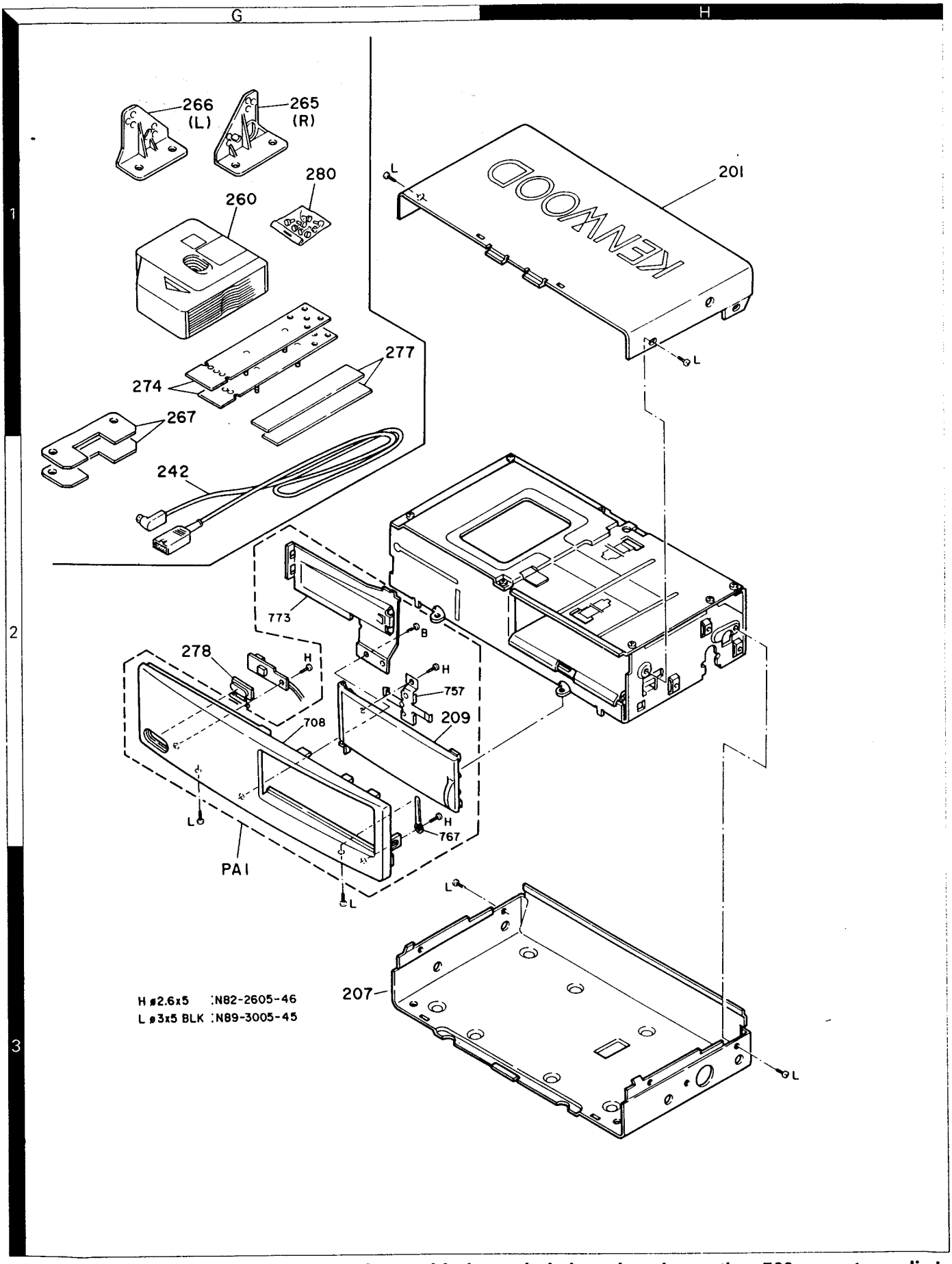
EXPLODED VIEW (UNIT)



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PARTS LIST

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
			KDC-C601			
201	1H	*	A01-2566-02	METALLIC CABINET		
203	1E		A10-2132-12	CHASSIS		
204	1E		A10-2133-23	CHASSIS CALKING ASSY		
206	3E		A10-2137-03	CHASSIS CALKING ASSY		
207	3H	*	A10-2224-02	CHASSIS		
209	2G	*	A21-2321-03	DRESSING PANEL		
PA1	2G	*	A64-0066-03	PANEL ASSY		
-			B46-0100-20	WARRANTY CARD		
-			B46-0172-03	QUESTIONAIRE CARD	W	
-			B46-0182-14	ID CARD	E	
-		*	B64-0251-00	INST.MANUAL(EN,FR,NE,IT,SP,GE)		
212	1F		D10-2718-03	SLIDER		
213	2F		D10-2719-04	SLIDER ASSY		
214	2E	*	D10-2723-13	SLIDER		
215	1E		D10-2724-04	ARM ASSY		
216	2E		D10-2726-04	LEVER		
217	3E		D10-2729-34	LEVER ASSY		
218	2E		D10-2733-04	SLIDER		
220	2E		D13-1044-24	GEAR		
221	1E		D13-1089-14	GEAR		
222	1E		D13-1090-04	GEAR		
223	1E		D13-1091-04	GEAR		
224	2E		D13-1092-14	GEAR		
225	1E		D13-1093-04	GEAR		
226	2E		D13-1094-04	GEAR		
227	1E		D13-1095-13	GEAR		
237	1E		D14-0625-04	ROLLER		
238	2E		D14-0626-13	ROLLER		
239	2E		D14-0627-03	ROLLER		
240	2E		D23-0905-24	RETAINER		
241	3E		D39-0213-05	DAMPER		
242	2G		E30-4000-05	CORD WITH PLUG		
247	2E		G01-2592-04	COMPRESSION SPRING		
248	2E		G01-2593-04	COMPRESSION SPRING		
249	2E		G01-2594-04	EXTENSION SPRING		
250	1E		G01-2595-04	EXTENSION SPRING		
251	3E		G01-2596-04	EXTENSION SPRING		
252	3E		G01-2597-24	EXTENSION SPRING		
255	1F		G02-1142-04	FLAT SPRING		
-			H10-4399-02	POLYSTYRENE FOAMED FIXTURE		
-			H10-4414-02	POLYSTYRENE FOAMED FIXTURE		
-			H25-0336-04	PROTECTION BAG (170X250X0.03)		
-			H25-1110-04	PROTECTION BAG (300X450X0.5)		
-		*	H54-0019-04	ITEM CARTON CASE		
-		*	H64-0023-04	OUTER CARTON CASE		
260	1G		J19-4409-22	HOLDER ASSY (MAGAZINE)		
261	2E		J19-4414-14	HOLDER		
262	2E		J19-4415-04	HOLDER		
265	1G		J19-4443-14	BRACKET (R)		
266	1G		J19-4444-14	BRACKET (L)		
267	1G		J19-4468-08	HOLDER		

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270	2E		J21-7283-04	MOUNTING HARDWARE ASSY		
272	2F	*	J21-7292-13	MOUNTING HARDWARE ASSY		
274	1G		J21-7328-14	MOUNTING HARDWARE ASSY		
276	1E	*	J21-7347-23	MOUNTING HARDWARE ASSY		
277	1G		J69-0503-04	ADHESIVE TAPE		
FFPC1	2E		J84-0029-12	FLEXIBLE PRINTED WIRING BOARD		
FFPC2	2E		J84-0030-02	FLEXIBLE PRINTED WIRING BOARD		
278	2G	*	K24-1326-04	KNOB (EJECT)		
280	1G		N99-1576-15	SCREW SET		
-			N80-2006-45	PAN HEAD TAPTITE SCREW		
-			N86-2604-45	BINDING HEAD TAPTITE SCREW		
A	3E		N09-4062-05	TAPTITE SCREW (2X 3,+S TITE)		
B	2E		N19-2022-04	FLAT WASHER		
C	2E		N19-2033-05	FLAT WASHER		
D	1E		N29-0206-04	RETAINING RING (2マル)		
E	2F		N29-0208-04	RETAINING RING (3マル)		
G	2E		N39-2025-46	PAN HEAD MACHIN SCREW		
H	2G		N82-2605-46	BINDING HEAD TAPTITE SCREW		
J	1F		N86-2605-46	BINDING HEAD TAPTITE SCREW		
K	2F		N89-2606-46	BINDING HEAD TAPTITE SCREW		
L	1G,3H		N89-3005-45	BINDING HEAD TAPTITE SCREW		
SSW1	1E		S74-0802-05	MICRO SWITCH		
ME1	2E	*	X92-1660-07	MECHANISM ASSY		
SWITCH UNIT (X13-7030-00)						
WH31		*	E31-8280-05	WIRING HARNESS		
S31	3F		S40-1607-05	PUSH SWITCH		
S32	3F	*	S40-1139-05	PUSH SWITCH		
SUB-CIRCUIT UNIT (X13-7060-00)						
305	3F		A10-2135-13	CHASSIS CALKING ASSY		
D21	1F		B30-1326-05	LED		
330	3F		D13-1096-13	GEAR		
331	3F		D13-1097-04	GEAR		
332	3F		D13-1099-04	GEAR		
334	3F		D13-1100-04	GEAR		
335	3F		D13-1101-04	WORM		
CN21			E40-5459-05	SOCKET FOR PIN ASSY		
CN22			E40-3246-05	PIN ASSY		
356	3F		G02-1143-04	FLAT SPRING		
363	3F		J19-4416-04	HOLDER		
A	3E		N09-4062-05	TAPTITE SCREW (2X 3,+S TITE)		
B	3E		N19-2022-04	FLAT WASHER		
E	3F		N29-0208-04	RETAINING RING (3)		
F	3F		N35-3003-46	BINDING HEAD MACHINE SCREW		
S21	3F		S40-1140-05	PUSH SWITCH		
S22	3F	*	S74-0801-05	MICRO SWITCH		
MM1	3E		T42-0720-05	DC MOTOR		
PH22	3F	*	T95-0210-05	OPTO ISOLATOR		

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PH21	3F		PT-461I1	PHOTO TRANSISTOR		
SUB CIRCUIT UNIT (X13-7100-00)						
67	1A		J21-7279-02	MOUNTING HARDWARE		
70	1A		J90-0726-02	GUIDE		
FPC2	1A		J84-0022-03	FLEXIBLE PRINTED WIRING BOARD		
PH100	1A		PT-461I1	PHOTO TRANSISTOR		
SUB CIRCUIT UNIT (X13-7110-00)						
D100	3A		B30-1365-05	LED		
FPC3	3A		J84-0023-02	FLEXIBLE PRINTED WIRING BOARD		
S100	3A		S40-1140-05	PUSH SWITCH		
CONTROL CIRCUIT UNIT (X29-2310-00)						
C1			CE04DW0J470M	ELECTRO 47UF 6.3WV		
C9			CE04DW0J470M	ELECTRO 47UF 6.3WV		
C10			CK73FB1H103K	CHIP C 0.010UF K		
C11			CE04DW0J221M	ELECTRO 220UF 6.3WV		
C12			CE04DW1C471M	ELECTRO 470UF 16WV		
C14 ,15			CE04DW1C101M	ELECTRO 100UF 16WV		
C16			CE04DW0J470M	ELECTRO 47UF 6.3WV		
C17			CK73FB1H103K	CHIP C 0.010UF K		
C19			CE04DW0J221M	ELECTRO 220UF 6.3WV		
C20			CE04DW1C470M	ELECTRO 47UF 16WV		
C21			CE04DW1C101M	ELECTRO 100UF 16WV		
C22 ,23			CK73EB1E104K	CHIP C 0.10UF K		
C24 ,25			CE04DW1H010M	ELECTRO 1.0UF 50WV		
C26			CK73FB1H103K	CHIP C 0.010UF K		
C27 -29		*	C90-2518-05	ELECTRO 2200UF 16WV		
C31 ,32			CE04DW1C101M	ELECTRO 100UF 16WV		
C33			CK73EB1H104K	CHIP C 0.10UF K		
CN1			E56-0805-05	CYLINDRICAL RECEPTACLE		
CN2		*	E40-5450-05	PIN ASSY		
CN3			E40-9180-05	FLAT CABLE CONNCTOR		
CN5			E40-3237-05	PIN ASSY		
CN6			E40-9230-05	FLAT CABLE CONNCTOR		
CN7			E40-3260-05	PIN ASSY		
X1			L78-0507-05	RESONATOR		
M	2F		N89-3006-46	BINDING HEAD TAPTITE SCREW		
R2			RK73EB2B391J	CHIP R 390 J 1/8W		
R3 ,4			RK73FB2A104J	CHIP R 100K J 1/10W		
R9			RK73EB2B470J	CHIP R 47 J 1/8W		
R10 ,11			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R12 -20			RK73FB2A104J	CHIP R 100K J 1/10W		
R21			RK73FB2A223J	CHIP R 22K J 1/10W		
R23			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R24 -29			RK73FB2A101J	CHIP R 100 J 1/10W		
R30			RK73EB2B561J	CHIP R 560 J 1/8W		
R32			RK73EB2B222J	CHIP R 2.2K J 1/8W		
R33			RK73FB2A223J	CHIP R 22K J 1/10W		
R34			RK73FB2A473J	CHIP R 47K J 1/10W		
R35 -38			RK73FB2A223J	CHIP R 22K J 1/10W		

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R40			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R41			RK73FB2A103J	CHIP R 10K J 1/10W		
R42			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R43 -47			RK73FB2A223J	CHIP R 22K J 1/10W		
R48			R92-2063-05	CHIP R 680 J 1/2W		
R49 -51			RK73FB2A223J	CHIP R 22K J 1/10W		
R52			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R53			RK73EB2B561J	CHIP R 560 J 1/8W		
R54			RK73FB2A103J	CHIP R 10K J 1/10W		
R55			RK73EB2B222J	CHIP R 2.2K J 1/8W		
R58			RK73FB2A473J	CHIP R 47K J 1/10W		
W1 ,2			R92-2053-05	CHIP R 0 J 1/8W		
D6			MA8091-M	ZENER DIODE		
D7			MA8075-M	ZENER DIODE		
D8			MA110	DIODE		
D9			MA8062-M	ZENER DIODE		
D10			MA110	DIODE		
D11		*	ERA15-01	DIODE		
D12			DA204K	DIODE		
D13			DAP202K	DIODE		
IC3		*	75112GF-740-3BE	IC		
IC4			S-80737AN-D1	IC		
IC5			SN74HC367ANS	IC		
IC7			TA7291P	IC(MOTOR DRIVER)		
IC8			M5278D05	IC(VOLTAGE REGULATOR)		
Q1			2SB1050	TRANSISTOR		
Q2			2SB941	TRANSISTOR		
Q3 ,4			DTC124EK	DIGITAL TRANSISTOR		
Q5			DTA124EK	DIGITAL TRANSISTOR		
Q6			DTC124EK	DIGITAL TRANSISTOR		
Q7			2SB1188	TRANSISTOR		
Q8			DTA124EK	DIGITAL TRANSISTOR		
Q9			DTC124EK	DIGITAL TRANSISTOR		
Q10			2SC2412K	TRANSISTOR		
CD PLAYER UNIT (X32-2340-01)						
C1			CK73FB1H103K	CHIP C 0.010UF K		
C2			CC73FCH1H220J	CHIP C 22PF J		
C3			CC73FCH1H020C	CHIP C 2.0PF C		
C4			CK73FB1H472K	CHIP C 4700PF K		
C5			CK73FB1E473KTA	CHIP C 0.047UF K		
C6			CC73FCH1H181J	CHIP C 180PF J		
C7			CK73FB1H223KTA	CHIP C 0.022UF K		
C8			CK73FB1E393KTA	CHIP C 0.039UF K		
C9			C92-1025-05	ELECTRO 0.47UF 50WV		
C10 ,11			C92-1020-05	ELECTRO 10UF 6.3WV		
C12			CK73FB1H153K	CHIP C 0.015UF K		
C13			CK73FB1H223KTA	CHIP C 0.022UF K		
C14			C92-1020-05	ELECTRO 10UF 6.3WV		
C15			C92-1026-05	ELECTRO 1UF 50WV		
C16			C92-1023-05	ELECTRO 22UF 4.0WV		
C18			CK73EF1C105Z	CHIP C 1.0UF Z		
C20 ,21			CK73EF1C105Z	CHIP C 1.0UF Z		
C22 ,23			CK73FB1E393KTA	CHIP C 0.039UF K		
C24			CC73FCH1H101J	CHIP C 100PF J		

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C25 ,26			CK73FB1H103K	CHIP C 0.010UF K		
C27 ,28			CK73EF1C105Z	CHIP C 1.0UF Z		
C29 ,30			CC73FCH1H330J	CHIP C 33PF J		
C32			CK73EB1E104K	CHIP C 0.10UF K		
C33			CK73EB1E224K	CHIP C 0.22UF K		
C35			CC73FCH1H560J	CHIP C 56PF J		
C38			CK73FB1H102K	CHIP C 1000PF K		
C41			CC73FCH1H220J	CHIP C 22PF J		
C42			CC73FCH1H330J	CHIP C 33PF J		
C45			C92-0012-05	TANTAL 22UF 6.3WV		
C47			C92-1026-05	ELECTRO 1UF 50WV		
C48			C92-1019-05	ELECTRO 4.7UF 16WV		
C49			CK73FB1H183KTA	CHIP C 0.018UF K		
C60 ,61			CK73EB1E104K	CHIP C 0.10UF K		
C66			CK73FB1H102K	CHIP C 1000PF K		
C67			CK73FB1H103K	CHIP C 0.010UF K		
C68			CK73FB1H102K	CHIP C 1000PF K		
C101			CK73FB1H331K	CHIP C 330PF K		
C103			CK73FB1H331K	CHIP C 330PF K		
C105-108			CC73FCH1H181J	CHIP C 180PF J		
C109,110			CK73FB1H471K	CHIP C 470PF K		
C111,112			C92-1019-05	ELECTRO 4.7UF 16WV		
C113,114			C93-1044-05	CERAMIC 2200PF K		
C115,116			C92-1019-05	ELECTRO 4.7UF 16WV		
C117			C92-1020-05	ELECTRO 10UF 6.3WV		
C118,119			CK73EB1E104K	CHIP C 0.10UF K		
C120,121			C93-1044-05	CERAMIC 2200PF K		
C122			CK73EB1E104K	CHIP C 0.10UF K		
C123			CK73FB1E473KTA	CHIP C 0.047UF K		
C126			CK73FB1E473KTA	CHIP C 0.047UF K		
C130			CC73FCH1H101J	CHIP C 100PF J		
C131			CK73FB1E473KTA	CHIP C 0.047UF K		
C132			C92-1020-05	ELECTRO 10UF 6.3WV		
CN1			E40-9251-05	FLAT CABLE CONNCTOR		
CN2			E40-9244-05	FLAT CABLE CONNCTOR		
CN3			E40-5266-05	FLAT CABLE CONNCTOR		
CN4			E40-5294-05	FLAT CABLE CONNCTOR		
CN5			E40-9256-05	FLAT CABLE CONNCTOR		
CN7			E40-9252-05	FLAT CABLE CONNCTOR		
L1			L33-0916-05	SMALL FIXED INDUCTOR		
L2			L40-1001-31	SMALL FIXED INDUCTOR(10UH)		
L3 ,4			L33-0916-05	SMALL FIXED INDUCTOR		
X1			L78-0505-05	RESONATOR		
X2			L77-2011-05	CRYSTAL RESONATOR(16.9344MHZ)		
R1			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R2			RK73EB2B100J	CHIP R 10 J 1/8W		
R3 ,4			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R5			RK73FB2A153J	CHIP R 15K J 1/10W		
R6			RK73FB2A910J	CHIP R 91 J 1/10W		
R7			RK73FB2A241J	CHIP R 240 J 1/10W		
R8			RK73FB2A562J	CHIP R 5.6K J 1/10W		
R9			RK73FB2A134J	CHIP R 130K J 1/10W		
R10			RK73FB2A822J	CHIP R 8.2K J 1/10W		
R11			RK73FB2A123J	CHIP R 12K J 1/10W		

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R12			RK73FB2A223J	CHIP R 22K J 1/10W		
R13 ,14			RK73FB2A123J	CHIP R 12K J 1/10W		
R16			RK73FB2A331J	CHIP R 330 J 1/10W		
R17			RK73FB2A223J	CHIP R 22K J 1/10W		
R18			RK73FB2A391J	CHIP R 390 J 1/10W		
R19			RK73FB2A272J	CHIP R 2.7K J 1/10W		
R20			RK73FB2A122J	CHIP R 1.2K J 1/10W		
R21			RK73FB2A125J	CHIP R 1.2M J 1/10W		
R22			RK73FB2A471J	CHIP R 470 J 1/10W		
R23			RK73FB2A103J	CHIP R 10K J 1/10W		
R24 ,25			RK73EB2B222J	CHIP R 2.2K J 1/8W		
R26 ,27			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R28			RK73FB2A333J	CHIP R 33K J 1/10W		
R29 ,30			RK73FB2A154J	CHIP R 150K J 1/10W		
R33			RK73FB2A473J	CHIP R 47K J 1/10W		
R34			RK73FB2A221J	CHIP R 220 J 1/10W		
R35			RK73EB2B472J	CHIP R 4.7K J 1/8W		
R36			RK73FB2A562J	CHIP R 5.6K J 1/10W		
R37			RK73FB2A474J	CHIP R 470K J 1/10W		
R38			RK73EB2B103J	CHIP R 10K J 1/8W		
R39			RK73FB2A103J	CHIP R 10K J 1/10W		
R40 ,41			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R42			RK73FB2A104J	CHIP R 100K J 1/10W		
R43			RK73FB2A224J	CHIP R 220K J 1/10W		
R44			RK73FB2A822J	CHIP R 8.2K J 1/10W		
R45			RK73FB2A272J	CHIP R 2.7K J 1/10W		
R46			RK73FB2A183J	CHIP R 18K J 1/10W		
R47			RK73FB2A393J	CHIP R 39K J 1/10W		
R48			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R49			RK73FB2A331J	CHIP R 330 J 1/10W		
R50			RK73FB2A473J	CHIP R 47K J 1/10W		
R51			RK73FB2A224J	CHIP R 220K J 1/10W		
R52			RK73FB2A225J	CHIP R 2.2M J 1/10W		
R53			RK73FB2A333J	CHIP R 33K J 1/10W		
R55			RK73FB2A103J	CHIP R 10K J 1/10W		
R57			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R58			RK73FB2A122J	CHIP R 1.2K J 1/10W		
R60			RK73FB2A272J	CHIP R 2.7K J 1/10W		
R61 -63			RK73FB2A103J	CHIP R 10K J 1/10W		
R65			RK73FB2A473J	CHIP R 47K J 1/10W		
R66			RK73FB2A104J	CHIP R 100K J 1/10W		
R67			RK73FB2A273J	CHIP R 27K J 1/10W		
R68			RK73FB2A123J	CHIP R 12K J 1/10W		
R69			RK73FB2A183J	CHIP R 18K J 1/10W		
R70			RK73FB2A473J	CHIP R 47K J 1/10W		
R71			RK73FB2A223J	CHIP R 22K J 1/10W		
R72			RK73FB2A104J	CHIP R 100K J 1/10W		
R73 -76			RK73FB2A223J	CHIP R 22K J 1/10W		
R77			RK73EB2B223J	CHIP R 22K J 1/8W		
R78			RK73FB2A103J	CHIP R 10K J 1/10W		
R79			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R80			RK73EB2B223J	CHIP R 22K J 1/8W		
R81			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R82 -85			RK73FB2A104J	CHIP R 100K J 1/10W		
R86			RK73FB2A184J	CHIP R 180K J 1/10W		

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R87			RK73FB2A333J	CHIP R 33K J 1/10W		
R88			RK73EB2B563J	CHIP R 56K J 1/8W		
R89			RK73EB2B683J	CHIP R 68K J 1/8W		
R90			RK73FB2A103J	CHIP R 10K J 1/10W		
R91			RK73FB2A333J	CHIP R 33K J 1/10W		
R92			RK73EB2B683J	CHIP R 68K J 1/8W		
R96 ,97			RK73FB2A223J	CHIP R 22K J 1/10W		
R98			RK73EB2B220J	CHIP R 22 J 1/8W		
R99			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R101-108			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R109-112			RK73FB2A822J	CHIP R 8.2K J 1/10W		
R113,114			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R115,116			RK73FB2A272J	CHIP R 2.7K J 1/10W		
R117,118			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R121,122			RK73FB2A681J	CHIP R 680 J 1/10W		
R123,124			RK73FB2A223J	CHIP R 22K J 1/10W		
R125,126			RK73FB2A103J	CHIP R 10K J 1/10W		
R127			RK73FB2A561J	CHIP R 560 J 1/10W		
R128			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R151			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R153			RK73FB2A682J	CHIP R 6.8K J 1/10W		
R154			RK73FB2A225J	CHIP R 2.2M J 1/10W		
R156			RK73FB2A221J	CHIP R 220 J 1/10W		
R157			RK73FB2A154J	CHIP R 150K J 1/10W		
R160			RK73FB2A104J	CHIP R 100K J 1/10W		
R161			RK73FB2A103J	CHIP R 10K J 1/10W		
R162			RK73FB2A125J	CHIP R 1.2M J 1/10W		
VR1			R12-6421-05	TRIM P0T. 4.7K		
VR2			R12-6429-05	TRIMMING P0T.(100K)		
W1 -7			R92-2052-05	CHIP R 0 J 1/10W		
W9 ,10			R92-2052-05	CHIP R 0 J 1/10W		
W11 -25			R92-2053-05	CHIP R 0 J 1/8W		
W31 -34			R92-2052-05	CHIP R 0 J 1/10W		
W50			R92-2052-05	CHIP R 0 J 1/10W		
D1			MA110	DI0DE		
D2			MA8062	ZENER DI0DE		
D3			MA110	DI0DE		
D4			MA8091	ZENER DI0DE		
D6 -13			MA110	DI0DE		
IC1			TA8191F	IC(RF AMP , SERV0)		
IC2			TC9236AF	IC(SIGNAL PR0CESS0R)		
IC3			AN8388SR	IC(M0T0R DRIVER)		
IC5			TA7291F	IC(L0ADING)		
IC6			75008GB-696-3B4	IC(MECHANISM MICR0C0MPUTER)		
IC7		*	SM5871AS	IC(D/A C0NVERTER x8 0VER SAM)		
IC8 ,9			NJM4565MD	IC(0P AMP X2)		
IC11			TA78L05F	IC(5V V0LTAGE REGULAT0R)		
IC12			TC7SU04F	IC(INVERTER)		
IC13			TC74AC04F	IC(INVERTER)		
IC16			TC7SU04F	IC(INVERTER)		
IC17			TC74AC04F	IC(INVERTER)		
Q1			2SB624(BV3)	TRANSISTOR		
Q2			2SA1037K	TRANSISTOR		
Q3			DTC124EK	DIGITAL TRANSISTOR		

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Q4			2SC2412K	TRANSISTOR		
Q5			DTA124EK	DIGITAL TRANSISTOR		
Q7 ,8			DTC114YK	DIGITAL TRANSISTOR		
Q9			2SA1037K	TRANSISTOR		
Q10			2SC2412K	TRANSISTOR		
Q11			DTC114YK	DIGITAL TRANSISTOR		
Q12			DTC124EK	DIGITAL TRANSISTOR		
Q13		*	2SA1362(Y)	TRANSISTOR		
Q14			2SD1624	TRANSISTOR		
Q15			DTA124EK	DIGITAL TRANSISTOR		
Q16 ,17			2SD1757K	TRANSISTOR		
Q18 -20			DTC124EK	DIGITAL TRANSISTOR		
TH1			NT732BTD33K	THERMISTOR		
MECHANISM ASSY (X92-1660-07)						
1	3A	*	A10-2122-32	CHASSIS CALKING ASSY		
2	3D		A10-2124-63	CHASSIS ASSY		
3	1C	*	A10-2198-02	CHASSIS		
6	2B	*	D10-2693-24	LEVER		
7	2B,3B		D10-2695-14	LEVER		
8	2A		D10-2696-23	LEVER		
9	2A		D10-2697-24	LEVER		
10	2A		D10-2698-34	ARM ASSY		
12	2D		D10-2700-04	ROD		
13	2D		D10-2701-04	ROD		
14	2C		D10-2702-34	LEVER ASSY		
16	1C	*	D10-2787-03	LEVER		
18	2A		D10-2796-03	LEVER ASSY		
20	3B	*	D12-0604-23	CAM		
21	2B	*	D12-0605-33	CAM		
22	2C		D13-1029-24	GEAR		
23	2C		D13-1030-24	GEAR		
24	2B	*	D19-0605-14	CLUTCH ASSY		
25	2A		D13-1040-04	GEAR		
26	2B		D13-1042-44	GEAR		
27	2B	*	D13-1043-14	GEAR		
28	2B		D13-1044-24	GEAR		
29	3A		D13-1083-04	WORM		
30	2A		D13-1084-04	GEAR		
31	1A		D13-1085-24	GEAR		
32	2A		D13-1086-03	LACK (GEAR)		
33	2B		D14-0622-04	ROLLER ASSY		
34	1A		D14-0633-04	ROLLER		
35	2A		D14-0624-13	ROLLER		
36	2D		D21-2109-14	SHAFT ASSY		
37	3A	*	D21-2111-44	SHAFT ASSY		
38	1A		D23-0905-24	RETAINER		
39	3A		D23-0910-14	RETAINER		
40	3C,3D		D39-0210-03	DAMPER		
41	2C		F20-1708-14	INSULATING SHEET		
42	2A		G01-2584-04	EXTENSION SPRING		
43	2C		G01-2585-04	EXTENSION SPRING		
46	1C		G01-2588-04	EXTENSION SPRING		
47	2B		G01-2590-04	EXTENSION SPRING		

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48	3A		G01-2591-14	EXTENSION SPRING		
49	3A		G01-2604-04	EXTENSION SPRING		
50	1C		G01-2630-04	TORSION COIL SPRING		
51	2D		G02-1136-14	FLAT SPRING		
52	2C		G02-1138-04	FLAT SPRING		
53	2C		G02-1139-14	FLAT SPRING		
54	2D		G02-1140-03	FLAT SPRING ASSY		
55	1C		G02-1151-04	FLAT SPRING		
56	2A		G02-1156-04	FLAT SPRING		
57	3A		G02-1157-04	FLAT SPRING		
-			H25-1103-04	PROTECTION BAG (200X250X0.05)		
58	2C	*	J11-0603-13	CLAMPER		
59	2C		J12-0662-04	PIN		
60	3B		J12-0663-04	PIN		
62	3C,3D	*	J19-4411-14	HOLDER		
64	2B		J21-7268-24	MOUNTING HARDWARE ASSY		
65	3A		J21-7270-03	MOUNTING HARDWARE		
66	2A		J21-7271-14	MOUNTING HARDWARE ASSY		
69	2C		J30-1014-14	SPACER		
FPC1	2C		J84-0021-03	FLEXIBLE PRINTED WIRING BOARD		
A	1A		N39-2025-46	PAN HEAD MACHIN SCREW		
B	3A		N09-4023-05	MACHINE SCREW (M2X3,+)		
C	2C		N39-1728-46	PAN HEAD MACHIN SCREW		
D	2C		N80-2006-46	PAN HEAD TAPTITE SCREW		
H	2C		N39-1722-45	PAN HEAD MACHIN SCREW		
S1	2C		S40-1112-05	PUSH SWITCH		
M1	2C		T42-0704-15	DC MOTOR		
M2	2C	*	T42-0724-15	MOTOR ASSY		
M3	2A		T42-0721-05	DC MOTOR		
PU1	2B		T25-0203-15	OPTICAL PICKUP HEAD		

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MARKING OF CHIP TRANSISTORS
(DTAxxxxK, DTCxxxxK, 2Sxxxxxx K)

SMT (PNP)

形　名/Parts No.	標　印/Mark	形　名/Parts No.	標　印/Mark
DTA144EK	16	DTA114YK	54
DTA124EK	15	DTA143TK	93
DTA114TK	94	DTA114EK	14
DTA144WK	76	DTA143EK	13
DTA143XK	33	DTA124XK	35
DTA124TK	95	DTA144TK	96
DTA123EK	12	DTA123JK	E32
DTA143ZK	E13	DTA113ZK	E11
DTA123YK	52	DTA114WK	74
DTA115EK	19	DTA115TK	99
DTA125TK	9A	DTA114GK	K14
DTA115GK	K19	DTA124GK	K15
DTA144GK	K12		

SMT (NPN)

形　名/Parts No.	標　印/Mark	形　名/Parts No.	標　印/Mark
DTC144EK	26	DTC114YK	64
DTC124EK	25	DTC143TK	03
DTC114TK	04	DTC114EK	24
DTC144WK	86	DTC143EK	23
DTC143XK	43	DTC124XK	45
DTC124TK	05	DTC144TK	06
DTC123EK	22	DTC123JK	E42
DTC143ZK	E23	DTC113ZK	E21
DTC123YK	62	DTC114WK	84
DTC115EK	29	DTC115TK	09
DTC125TK	0A	DTC114GK	K24
DTC115GK	K29	DTC124GK	K25
DTC144GK	K22		

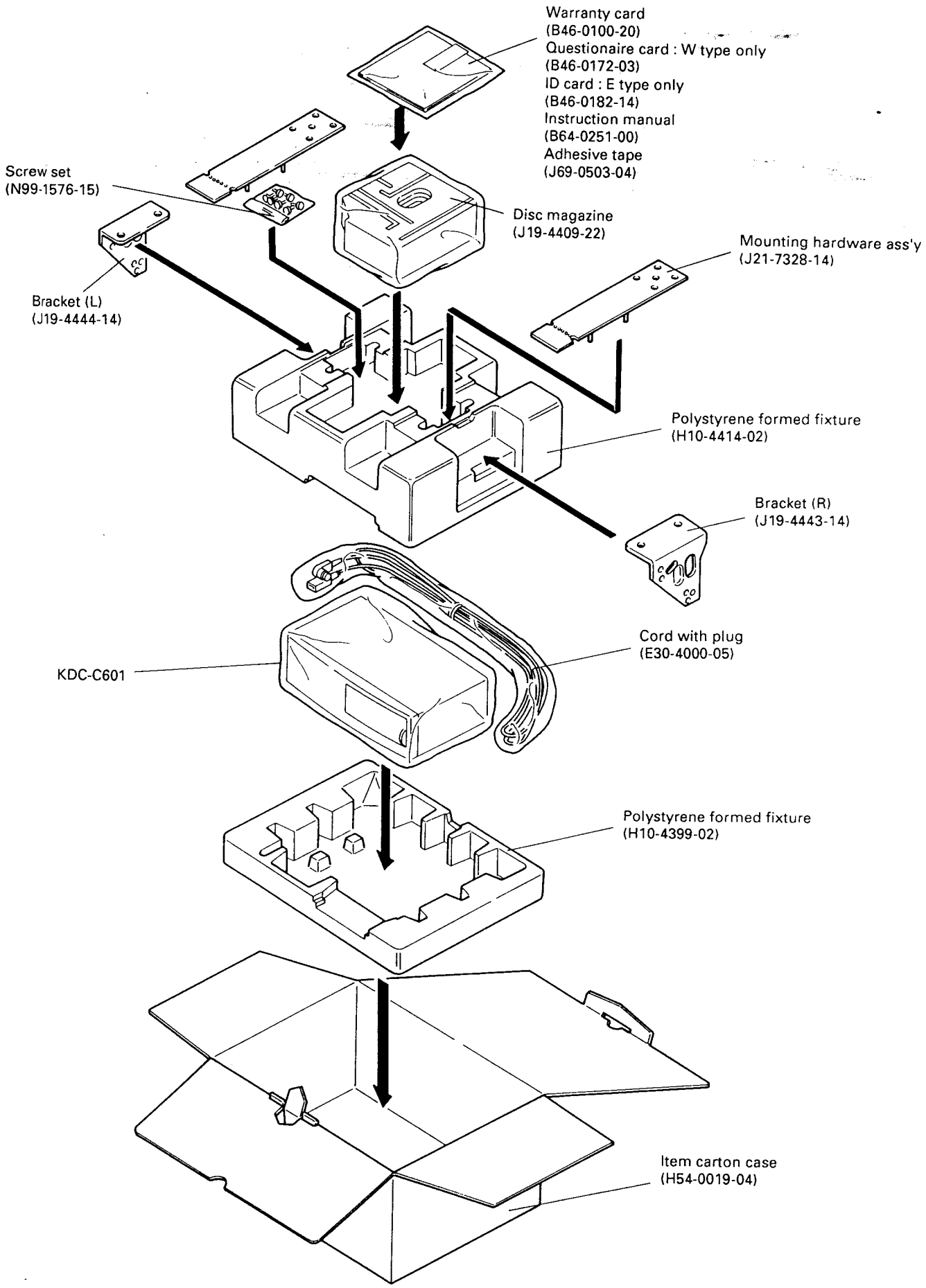
SMT

形　名/Parts No.	略記号 / Mark	形　名/Parts No.	略記号 / Mark
2SA1036K	H	2SA1037K	F
2SA1037KLN	D	2SA1455K	G
2SA1514K	M	2SB852K	U
2SC2059K	J	2SC2411K	C
2SC2412K	B	2SC2412KLN	L
2SC2413K	A	2SC3082K	S
2SC3722K	I	2SC3802K	AL
2SC3837K	AC	2SC3838K	AD
2SC3839K	AE	2SC3906K	T
2SD1383K	W	2SD1484K	Y
2SD1757K	AA	2SD1781K	AF
2SD1782K	AJ		

MPT

形　名/Parts No.	略記号 / Mark	形　名/Parts No.	略記号 / Mark
2SB1132	BA	2SB1188	BC
2SB1189	BD	2SD1664	DA
2SD1766	DB	2SD1767	DC
2SD1834	DE		

PACKING


Warranty card
(B46-0100-20)
Questionaire card : W type only
(B46-0172-03)
ID card : E type only
(B46-0182-14)
Instruction manual
(B64-0251-00)
Adhesive tape
(J69-0503-04)
Screw set
(N99-1576-15)
Disc magazine
(J19-4409-22)
Mounting hardware ass'y
(J21-7328-14)
Bracket (L)
(J19-4444-14)
Polystyrene formed fixture
(H10-4414-02)
Bracket (R)
(J19-4443-14)
Cord with plug
(E30-4000-05)
KDC-C601
Polystyrene formed fixture
(H10-4399-02)
Item carton case
(H54-0019-04)

KDC-C601

SPECIFICATIONS

Disc Section

Laser Diode	GaAlAs (λ = 780 nm)
Digital Filter	8 Times Over Sampling
D/A Converter	1 bit
Sampling Frequency	44.1 kHz
Conversion Rate	176.4 kHz
Spindle Speed	500 ~ 200 rpm (CLV)
Wow & Flutter	Below Measurable Limit
Frequency Response (±1 dB)	5 Hz ~ 20 kHz
Total Harmonic Distortion (1 kHz)	0.005%
Signal to Noise Ratio	94 dB
Dynamic Range	94 dB
Channel Separation	85 dB

Laser Diode Properties

Material	GaAlAs
Wavelength	780 nm
Emission Duration	Continuous
Laser Output Power	Less than 44.6 μW

* This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.

General

Operating Voltage	14.4 V (11 ~ 16 V)
Current Consumption	0.8 A
Operating Temperature	−10 ~ 50 °C
Installation Size (W × H × D)	281 × 76 × 171 mm (11-1/16 × 3 × 6-3/4 in.)
Weight	3.3 kg (6.8 lb)

KENWOOD follows a policy of continuous advancements in development.
For this reason specifications may be changed without notice.
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Noise reduction circuit made under license from Dolby Laboratories Licensing Corporation.

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Note :

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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